STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 165746

TO: Sarvamangala Devi **Art Unit:** 1645 **Location:** REM/3B07/3C18 **Serial Number:** 09/769744 **Tuesday, November 01, 2005**	**From:** Beverly Shears **Location:** Biotech-Chem Library REM 1A54 **Phone:** 571-272-2528 beverly.shears@uspto.gov

Search Notes

Protein Sequence Searches – February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.

- If you encounter an accession number from an older search run against UniProt (results file extension **.rup**) that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (uniPARC) at:

  http://www.pir.uniprot.org/database/archive.shtml

If you have any questions regarding this information or your results, please contact any STIC searcher.

STIC-Biotech/ChemLib 169783 CRF

From: Devi, Sarvamangala
Sent: Thursday, October 27, 2005 4:24 PM
To: STIC-Biotech/ChemLib
Cc: Shears, Beverly
Subject: 09/769,744

Please ask **Ms. BEVERLY SHEARS** to perform this search.

In application 09/769,744, please perform a sequence search for SEQ ID NO: 26 and an at least four amino acid-long fragment thereof in both commercial and pending databases. Please include an inventors' name search for Richard William Falla Le Page, Jeremy Mark Wells, BoSean Bosco Hannify and Philip Michael Hansbro.

Thanx.

S. DEVI, Ph.D.
Primary Examiner
AU 1645
Rems - 3C18

169914

10/31/05
JH.

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Searcher:_____	Type of Search	Vendors and cost where applicable
Searcher Phone:_____	NA#_____ AA#:_____	STN:_____
Date Searcher Picked up:_____	S/L:_____ Oligomer:_____	DIALOG:_____
Date completed:_____	Encode/Transl:_____	QUESTEL/ORBIT:_____
Searcher Prep Time:_____	Structure #:_____Text:_____	LEXIS/NEXIS:_____
Online Time:_____	Inventor:_____ Litigation:_____	SEQUENCE SYSTEM:_____
		WWW/Internet:_____
		Other (Specify):_____

Date completed: _____	**Search Site**	**Vendors**
Searcher: Beverly e2528	_____ STIC	_____ IG
Terminal time: _____	_____ CM-1	✓ STN
Elapsed time: _____	_____ Pre-S	✓ Dialog
CPU time: _____	**Type of Search**	_____ APS
Total time: _____	_____ N.A. Sequence	_____ Geninfo
Number of Searches: _____	_____ A.A. Sequence	_____ SDC
Number of Databases: _____	_____ Structure	_____ DARC/Questel
	_____ Bibliographic	✓ Other CGN

PTO-1590 (9-90)

Devi, S.
09/769744

01nov05 11:27:13 User219783 Session D2122.2

SYSTEM:OS - DIALOG OneSearch
File 65:Inside Conferences 1993-2005/Oct W4
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File 440:Current Contents Search(R) 1990-2005/Oct 31
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File 348:EUROPEAN PATENTS 1978-2005/Oct W04
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File 357:Derwent Biotech Res. _1982-2005/Oct W5
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S2 3537 AU=(WELLS, J? OR WELLS J?)
S3 20 AU=(HANNIFY, S? OR HANNIFFY, S? OR HANNIFY S? OR HANNIFFY - S?)
S4 35 AU=(HANSBRO, P? OR HANSBRO P?)
S5 2 S1 AND S2 AND S3 AND S4
S6 53 S1 AND (S2 OR S3 OR S4)
S7 16 S2 AND (S3 OR S4)
S8 2 S3 AND S4
S9 89 (S6 OR S1 OR S2 OR S3 OR S4) AND (PNEUMONIAE OR PNEUMOCOCC-?)
S10 97 S5 OR S7 OR S8 OR S9
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11/3,AB/1 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
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20471838 Document Delivery Available: 000227745800017 References: 44
TITLE: Evidence that the essential response regulator YycF in Streptococcus **pneumoniae**, modulates expression of fatty acid biosynthesis genes and alters membrane composition
AUTHOR(S): Mohedano ML; Overweg K; de la Fuente A; Reuter M; Altabe S; Mulholland F; de Mendoza D; Lopez P (REPRINT); **Wells JM**
AUTHOR(S) E-MAIL: plg@cib.csic.es
CORPORATE SOURCE: CSIC, Dept Estructura & Func Proteinas, Ramiro Maeztu,9/E-28040 Madrid//Spain/ (REPRINT); CSIC, Dept Estructura & Func Proteinas, /E-28040 Madrid//Spain/; Food Res Inst, /Norwich/Norfolk/England/; Univ Nacl Rosario, Dept Microbiol, /RA-2000 Rosario//Argentina/; Univ Nacl Rosario, Inst Biol Mol & Celular Rosario, /RA-2000 Rosario//Argentina/
PUBLICATION TYPE: JOURNAL
PUBLICATION: JOURNAL OF BACTERIOLOGY, 2005, V187, N7 (APR), P2357-2367
GENUINE ARTICLE#: 907VJ
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
ISSN: 0021-9193
LANGUAGE: English DOCUMENT TYPE: ARTICLE
ABSTRACT: The YycFG two-component system, originally identified in Bacillus subtilis, is highly conserved among gram-positive bacteria with low G+C

contents. In Streptococcus **pneumoniae**, the YycF response regulator has been reported to be essential for cell growth, but the signal to which it responds and the gene members of the regulon remain unclear. In order to investigate the role of YycFG in S. **pneumoniae**, we increased the expression of yycF by using a maltose-inducible vector and analyzed the genome-wide effects on transcription and protein expression during the course of yycF expression. The induction of yycF expression increased histidine kinase yycG transcript levels, suggesting an autoregulation of the yycFG operon. Evidence from both proteomic and microarray transcriptome studies as well as analyses of membrane fatty acid composition indicated that YycFG is involved in the regulation of fatty acid biosynthesis pathways and in determining fatty acid chain lengths in membrane lipids. In agreement with recent transcriptome data on **pneumococcal** cells depleted of YycFG, we also identified several other potential members of the YycFG regulon that are required for virulence and cell wall biosynthesis and metabolism.

11/3,AB/2 (Item 2 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

20337795 Document Delivery Available: 000227373300046 References: 87
TITLE: Characterization of a novel leucine-rich repeat protein antigen from group B streptococci that elicits protective immunity
AUTHOR(S): Seepersaud R; **Hanniffy SB**; Mayne P; Sizer P; Le Page R; **Wells JA (REPRINT)**
AUTHOR(S) E-MAIL: jwells@science.uva.nl
CORPORATE SOURCE: Univ Amsterdam, Swammerdam Inst Life Sci, Nieuwe Achtergracht 166/NL-1018 WV Amsterdam//Netherlands/ (REPRINT); Univ Cambridge, Cortecs Ctr Vaccine Discovery, /Cambridge CB2 1TN//England/; Inst Food Res, /Norwich/Norfolk/England/; Provalis Ltd, /Deeside/Flint/Wales/
PUBLICATION TYPE: JOURNAL
PUBLICATION: INFECTION AND IMMUNITY, 2005, V73, N3 (MAR), P1671-1683
GENUINE ARTICLE#: 902RD
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
ISSN: 0019-9567
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Group B streptococci (GBS) usually behave as commensal organisms that asymptomatically colonize the gastrointestinal and urogenital tracts of adults. However, GBS are also pathogens and the leading bacterial cause of life-threatening invasive disease in neonates. While the events leading to transmission and disease in neonates remain unclear, GBS carriage and level of colonization in the mother have been shown to be significant risk factors associated with invasive infection. Surface antigens represent ideal vaccine targets for eliciting antibodies that can act as opsonins and/or inhibit colonization and invasion. Using a genetic screen for exported proteins in GBS, we identified a gene, designated IrrG, that encodes a novel LPXTG anchored surface antigen containing leucine-rich repeat (LRR) motifs found in bacterial invasins and other members of the LRR protein family. Southern blotting showed that IrrG was present in all GBS strains tested, representing the nine serotypes, and revealed the presence of an lrrG homologue in Streptococcus pyogenes. Recombinant LrrG protein was shown in vitro to adhere to epithelial cells in a dose-dependent manner, suggesting that it may function as an adhesion factor in GBS. More importantly, immunization with recombinant LrrG

elicited a strong immunoglobulin G response in CBA/ca mice and protected against lethal challenge with virulent GBS. The data presented in this report suggest that this conserved protein is a highly promising candidate antigen for use in a GBS vaccine.

11/3,AB/3 (Item 3 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

20329605 Document Delivery Available: 000226025600001 References: 312
TITLE: Potential and opportunities for use of recombinant lactic acid bacteria in human health
AUTHOR(S): **Hanniffy S**; Wiedermann U; Repa A; Mercenier A; Daniel C; Fioramonti J; Tlaskolova H; Kozakova H; Israelsen H; Madsen S; Vrang A; Hols P; Delcour J; Bron P; Kleerebezem M; **Wells J (REPRINT)**; Laskin AI; Bennett JW; Gadd GM
AUTHOR(S) E-MAIL: jwells@science.uva.nl
CORPORATE SOURCE: Inst Food Res, Inst Food Res, Norwich Res Pk/Norwich NR4 7UA/Norfolk/England/ (REPRINT); Inst Food Res, Inst Food Res, /Norwich NR4 7UA/Norfolk/England/; Univ Vienna, Dept Pathophysiol, /A-1090 Vienna//Austria/; Inst Pasteur, Dept Microbiol Ecosyst, /F-59019 Lille//France/; INRA, Neurogastroenterol & Nutr Unit, /F-31931 Toulouse 9//France/; Acad Sci Czech Republ, Inst Microbiol, /Prague 14220 4//Czech Republic/; Bioneer AS, /DK-2970 Horsholm//Denmark/; Univ Catholique Louvain, Unite Genet, /B-1348 Louvain//Belgium/; NIZO Food Res, Wageningen Ctr Food Sci, /NL-6710 BA Ede//Netherlands/
PUBLICATION TYPE: BOOK IN SERIES
PUBLICATION: ADVANCES IN APPLIED MICROBIOLOGY, VOL 56, 2004, V56, P1-64
GENUINE ARTICLE#: BBL62
BOOK SERIES TITLE: ADVANCES IN APPLIED MICROBIOLOGY
PUBLISHER: ELSEVIER ACADEMIC PRESS INC, 525 B STREET, SUITE 1900, SAN DIEGO, CA 92101-4495 USA
ISBN: 0-12-002658-9
ISSN: 0065-2164
LANGUAGE: English DOCUMENT TYPE: REVIEW

11/3,AB/4 (Item 4 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

19482379 Document Delivery Available: 000224592700014 References: 46
TITLE: Glycolytic enzymes associated with the cell surface of Streptococcus **pneumoniae** are antigenic in humans and elicit protective immune responses in the mouse
AUTHOR(S): Ling E; Feldman G; Portnoi M; Dagan R; Overweg K; Mulholland F; Chalifa-Caspi V; **Wells J**; Mizrachi-Nebenzahl Y (REPRINT)
AUTHOR(S) E-MAIL: ymizr@bgumail.bgu.ac.il
CORPORATE SOURCE: Soroka Univ, Pediat Infect Dis Unit, /IL-84105 Beer Sheva//Israel/ (REPRINT); Soroka Univ, Pediat Infect Dis Unit, /IL-84105 Beer Sheva//Israel/; Ben Gurion Univ Negev, Dept Microbiol & Immunol, /IL-84105 Beer Sheva//Israel/; Inst Food Res, Inst Food Res, /Norwich NR4 7UA/Norfolk/England/; Ben Gurion Univ Negev, Dept Life Sci, /IL-84105 Beer Sheva//Israel/
PUBLICATION TYPE: JOURNAL
PUBLICATION: CLINICAL AND EXPERIMENTAL IMMUNOLOGY, 2004, V138, N2 (NOV), P 290-298
GENUINE ARTICLE#: 863VY

PUBLISHER: BLACKWELL PUBLISHING LTD, 9600 GARSINGTON RD, OXFORD OX4 2DG, OXON, ENGLAND
ISSN: 0009-9104
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Streptococcus **pneumoniae** is a leading cause of otitis media, sinusitis, pneumonia, bacteraemia and meningitis worldwide. The drawbacks associated with the limited number of various capsular polysaccharides that can be included in the polysaccharide-based vaccines focuses much attention on **pneumococcal** proteins as vaccine candidates. We extracted an enriched cell wall fraction from S. **pneumoniae** WU2. Approximately 150 soluble proteins could be identified by 2D gel electrophoresis. The proteins were screened by 2D-Western blotting using sera that were obtained longitudinally from children attending day-care centres at 18, 30 and 42 months of age and sera from healthy adult volunteers. The proteins were further identified using matrix-assisted laser desorption ionization-time of flight mass spectrometry. Seventeen proteins were antigenic in children and adults, of which 13 showed an increasing antibody response with age in all eight children analysed. Two immunogenic proteins, fructose-bisphosphate aldolase (FBA) and glyceraldehyde-3-phosphate dehydrogenase (GAPDH), and a control protein with known low immunogenicity, heat shock protein 70 (DnaK), were expressed in Escherichia coli, purified and used to immunize mice. Mouse antibodies elicited to the recombinant (r) FBA and rGAPDH were cross-reactive with several genetically unrelated strains of different serotypes and conferred protection to respiratory challenge with virulent **pneumococci**. In addition, the FBA used in this study (NP 345117) does not have a human ortholog and warrants further investigation as a candidate for a **pneumococcal** vaccine. In conclusion, the immunoproteomics based approach utilized in the present study appears to be a suitable tool for identification of novel S. **pneumoniae** vaccine candidates.

11/3,AB/5 (Item 5 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

18961745 Document Delivery Available: 000222857900031 References: 34
TITLE: Relationship between codon biased genes, microarray expression values and physiological characteristics of Streptococcus **pneumoniae**
AUTHOR(S): Martin-Galiano AJ (REPRINT); **Wells JM**; de la Campa AG
AUTHOR(S) E-MAIL: a.martin@wzw.tum.de
CORPORATE SOURCE: Wissensch Zentrum Weihenstephan, Lehrstuhl Genomorientierte Bioinformat, Forum 1/D-85354 Freising Weihenstephan//Germany/ (REPRINT); Inst Salud Carlos III, Unidad Genet Bacteriana, /ES-28220 Madrid//Spain/; Inst Food Res, Bacterial Infect & Immun Grp, /Norwich NR4 7UA/Norfolk/England/
PUBLICATION TYPE: JOURNAL
PUBLICATION: MICROBIOLOGY-SGM, 2004, V150, ,7 (JUL), P2313-2325
GENUINE ARTICLE#: 840KQ
PUBLISHER: SOC GENERAL MICROBIOLOGY, MARLBOROUGH HOUSE, BASINGSTOKE RD, SPENCERS WOODS, READING RG7 1AG, BERKS, ENGLAND
ISSN: 1350-0872
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: A codon-profile strategy was used to predict gene expression levels in Streptococcus **pneumoniae**. Predicted highly expressed (PHE) genes included those encoding glycolytic and fermentative enzymes,

sugar-conversion systems and carbohydrate-transporters. Additionally, some genes required for infection that are involved in oxidative metabolism and hydrogen peroxide production were PHE. Low expression values were predicted for genes encoding specific regulatory proteins like two-component systems and competence genes. Correspondence analysis localized 484 ORFs which shared a distinctive codon profile in the right horn. These genes had a mean G + C content (33(.)4%) that was lower than the bulk of the genome coding sequences (39(.)7%), suggesting that many of them were acquired by horizontal transfer. Half of these genes (242) were pseudogenes, ORFs shorter than 80 codons or without assigned function. The remaining genes included several virulence factors, such as capsular genes, iga, lytB, nanB, pspA, choline-binding proteins, and functions related to DNA acquisition, such as restriction-modification systems and comDE. In order to compare predicted translation rate with the relative amounts of mRNA for each gene, the codon adaptation index (CAI) values were compared with microarray fluorescence intensity values following hybridization of labelled RNA from laboratory-grown cultures. High mRNA amounts were observed in 32(.)5% of PHE genes and in 64% of the 25 genes with the highest CAI values. However, high relative amounts of RNA were also detected in 10(.)4% of non-PHE genes, such as those encoding fatty acid metabolism enzymes and proteases, suggesting that their expression might also be regulated at the level of transcription or mRNA stability under the conditions tested. The effects of codon bias and mRNA amount on different gene groups in S. **pneumoniae** are discussed.

11/3,AB/6 (Item 6 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

18176388 Document Delivery Available: 000220479900001 References: 157
TITLE: Role of atypical bacterial infection of the lung in predisposition/protection of asthma
AUTHOR(S): **Hansbro PM (REPRINT)**; Beagley KW; Horvat JC; Gibson PG
AUTHOR(S) E-MAIL: Philip.Hansbro@newcastle.edu.au
CORPORATE SOURCE: Royal Newcastle Hosp, Vaccines Immunol Infect Viruses & Asthma Grp, Level 3,David Maddison Clin Sci Bldg/Newcastle/NSW 2300/Australia/ (REPRINT); Univ Newcastle, Fac Hlth, /Callaghan/NSW 2308/Australia/; Hunter Med Res Inst, Vaccines Immunol Infect Viruses & Asthma Grp, /New Lambton/NSW 2305/Australia/; John Hunter Hosp, Hunter Region Mail Ctr, /Newcastle/NSW 2310/Australia/
PUBLICATION TYPE: JOURNAL
PUBLICATION: PHARMACOLOGY & THERAPEUTICS, 2004, V101, N3 (MAR), P193-210
GENUINE ARTICLE#: 807CP
PUBLISHER: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND
ISSN: 0163-7258
LANGUAGE: English DOCUMENT TYPE: REVIEW

ABSTRACT: Asthma is a common inflammatory disease of the airways that results in airway narrowing and wheezing. Allergic asthma is characterised by a T-helper cell-type (Th) 2 response, immunoglobulin (Ig) E production, and eosinophilic influx into the airways. Recently, many clinical studies have implicated Mycoplasma **pneumoniae** and Chlamydia **pneumoniae** in the development and exacerbation of both chronic and acute asthma. It is widely accepted that M. **pneumoniae** and C **pneumoniae** infections require Th1 immunity for clearance; therefore, according to the hygiene hypothesis, these infections should be protective against asthma. Here, we review the clinical evidence for the association and mechanisms of

predisposition to and protection against asthma by these infections. We will examine the following question: Is it the absence of infection or the age of the individual on infection that confers susceptibility or resistance to asthma and does this vary between normal and predisposed individuals? We put forward a hypothesis of the effects of these infections on the development and prevention of asthma and how novel preventative and treatment strategies involving these microbes may be targeted against asthma.

11/3,AB/7 (Item 7 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

18000220 Document Delivery Available: 000189270800040 References: 36
TITLE: Epitope mapping of a protective monoclonal antibody against Pneumocystis carinii with shared reactivity to Streptococcus **pneumoniae** surface antigen PspA
AUTHOR(S): **Wells J**; Gigliotti F; Simpson-Haidaris PJ; Haidaris CG (REPRINT)
AUTHOR(S) E-MAIL: haid@mail.rochester.edu
CORPORATE SOURCE: Univ Rochester, Dept Microbiol & Immunol, Box 672,601 Elmwood Ave/Rochester//NY/14642 (REPRINT); Univ Rochester, Dept Microbiol & Immunol, /Rochester//NY/14642; Univ Rochester, Dept Pediat, /Rochester//NY/14642; Univ Rochester, Dept Med, /Rochester//NY/14642
PUBLICATION TYPE: JOURNAL
PUBLICATION: INFECTION AND IMMUNITY, 2004, V72, N3 (MAR), P1548-1556
GENUINE ARTICLE#: 778ZH
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
ISSN: 0019-9567
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Pneumocystis carinii is an opportunistic fungal pathogen that causes pneumonia in the immunocompromised host. A protective monoclonal antibody (MAb) termed 4F11 generated against mouse-derived P. carinii was shown by indirect immunofluorescence assay (IFA) to bind surface antigens of P. carinii derived from multiple host species, including humans. We have identified multiple epitopes recognized by MAb 4FI1 in two recombinant mouse P. carinii antigens. The epitopes mapped have similar proline content and positive charge distribution. The consensus 8-mer epitope recognized by MAb 4F11 is K/RPA/RPK/QPA/TP. Immune sera raised against intact mouse P. carinii recognized native antigens affinity purified with MAb 4FI1 and a recombinant antigen reactive with MAb 4F11. Database searches for short, nearly exact matches to the mapped MAb 4F11 epitopes identified a bacterial surface antigen, Streptococcus **pneumoniae** PspA, with a similar proline-rich region. In an IFA, MAb 4FI1 detected antigens on the S. **pneumoniae** surface, and Western blotting identified a protein in S. **pneumoniae** lysates consistent with the M-r of PspA. A fragment of the S. **pneumoniae** PspA gene was cloned and sequenced, and the deduced amino acid sequence contained a region with strong similarity to the MAb 4F11 epitopes identified in P. carinii. The PspA recombinant polypeptide was recognized by MAb 4F11 in a Western blot. The ability of MAb 4F11 to recognize similar proline-rich epitopes may explain its ability to recognize P. carinii derived from multiple hosts and will permit testing of the epitopes recognized by this antibody in immunization against P. carinii.

11/3,AB/8 (Item 8 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

17866771 Document Delivery Available: 000188768300014 References: 65
TITLE: Interconnection of competence, stress and CiaR regulons in Streptococcus **pneumoniae**: competence triggers stationary phase autolysis of ciaR mutant cells
AUTHOR(S): Dagkessamanskaia A; Moscoso M; Henard V; Guiral S; Overweg K; Reuter M; Martin B; **Wells J**; Claverys JP (REPRINT)
AUTHOR(S) E-MAIL: claverys@ibcg.biotoul.fr
CORPORATE SOURCE: Univ Toulouse 3, Lab Microbiol & Genet Mol, 118 Route Narbonne/F-31062 Toulouse//France/ (REPRINT); Univ Toulouse 3, Lab Microbiol & Genet Mol, /F-31062 Toulouse//France/; AFRC, Inst Food Res, /Norwich NR4 7UA/Norfolk/England/
PUBLICATION TYPE: JOURNAL
PUBLICATION: MOLECULAR MICROBIOLOGY, 2004, V51, N4 (FEB), P1071-1086
GENUINE ARTICLE#: 771CQ
PUBLISHER: BLACKWELL PUBLISHING LTD, 9600 GARSINGTON RD, OXFORD OX4 2DG, OXON, ENGLAND
ISSN: 0950-382X
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Of the 13 two-component signal transduction systems (TCS) identified in Streptococcus **pneumoniae**, two, ComDE and CiaRH, are known to affect competence for natural genetic transformation. ComD and ComE act together with the comC-encoded competence-stimulating peptide (CSP) and with ComAB, the CSP-dedicated exporter, to co-ordinate activation of genes required for differentiation to competence. Several lines of evidence suggest that the CiaRH TCS and competence regulation are interconnected, including the observation that inactivation of the CiaR response regulator derepresses competence. However, the nature of the interconnection remains poorly understood. Interpretation of previous transcriptome analyses of ciaR mutants was complicated by competence derepression in the mutants. To circumvent this problem, we have used microarray analysis to investigate the transition from non-competence to competence in a comC-null wild-type strain and its ciaR derivative after the addition of CSP. This study increased the number of known CSP-induced genes from approximate to 47 to 105 and revealed approximate to 42 genes with reduced expression in competent cells. Induction of the CiaR regulon, as well as the entire HrcA and part of the CtsR stress response regulons, was observed in wild-type competent cells. Enhanced induction of stress response genes was detected in ciaR competent cells. In line with these observations, CSP was demonstrated to trigger growth arrest and stationary phase autolysis in ciaR cells. Taken together, these data strongly suggest that differentiation to competence imposes a temporary stress on cells, and that the CiaRH TCS is required for the cells to exit normally from the competent state.

11/3,AB/9 (Item 9 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

17857007 Document Delivery Available: 000188868700011 References: 35
TITLE: Genetic background affects susceptibility in nonfatal **pneumococcal** bronchopneumonia
AUTHOR(S): Preston JA; Beagley KW; Gibson PG; **Hansbro PM (REPRINT)**
AUTHOR(S) E-MAIL: Philip.Hansbro@newcastle.edu.au

CORPORATE SOURCE: Royal Newcastle Hosp, Discipline Immunol & Microbiol, Level 3,David Maddison Clin Sci Bldg/Newcastle/NSW 2300/Australia/ (REPRINT); Univ Newcastle, Fac Hlth, /Newcastle/NSW 2308/Australia/; John Hunter Hosp, Hunter Med Res Inst, /Newcastle/NSW/Australia/; John Hunter Hosp, Sch Med Practice, /Newcastle/NSW/Australia/; Hunter Med Res Inst, Viruses & Asthma Grp, /New Lambton/NSW/Australia/
PUBLICATION TYPE: JOURNAL
PUBLICATION: EUROPEAN RESPIRATORY JOURNAL, 2004, V23, N2 (FEB), P224-231
GENUINE ARTICLE#: 772XU
PUBLISHER: EUROPEAN RESPIRATORY SOC JOURNALS LTD, 146 WEST ST, STE 2.4, HUTTONS BLDG, SHEFFIELD S1 4ES, ENGLAND
ISSN: 0903-1936
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: A nonfatal **pneumococcal** lung infection model was required to investigate immune responses during recovery, and the interaction of other diseases subsequent to infection. A murine model of nonfatal **pneumococcal** lung infection was developed and the effect of genetic background on susceptibility was determined in BALB/c and C57BL/6 mice.

Bacteria colonised the lungs and mice developed mild clinical illness with pathophysiology similar to human bronchopneumonia. Recovery was associated with immune cell influx, which cleared bacteria but induced tissue damage characteristic of **pneumococcal** bronchopneumonia.

After clearance, immune cell populations returned to normal and tissues appeared less inflamed. Although bacterial exposure and clearance were similar, the extent of immune cell influx and tissue damage differed significantly. Larger numbers of neutrophils and lymphocytes entered lung tissue and the affected area was greater in BALB/c compared with C57BL/6 mice.

An inflammatory basis for differences was determined with greater levels of phagocytosis and oxidative burst observed in BALB/c mice. C57BL/6 mice cleared the low inoculum with a reduced immune response; however, C57BLJ6 mice are more susceptible to larger inocula, which overwhelms the immune system. These different susceptibilities result from a greater inflammatory response in BALB/c compared with C57BL/6 mice.

11/3,AB/10 (Item 10 from file: 440)

17184338 Document Delivery Available: 000186063600007 References: 0
TITLE: Expression and delivery of heterologous antigens using lactic acid bacteria
AUTHOR(S): Reuter MA (REPRINT); **Hanniffy S; Wells JM;** Robinson A; Hudson MJ; Cranage MP
CORPORATE SOURCE: Food Res Inst, Norwich Res Pk/Norwich/Norfolk/England/ (REPRINT); Food Res Inst, /Norwich/Norfolk/England/
PUBLICATION TYPE: BOOK IN SERIES
PUBLICATION: VACCINE PROTOCOLS, SECOND EDITION, 2003, V87, P101-114
GENUINE ARTICLE#: BX66Z
BOOK SERIES TITLE: METHODS IN MOLECULAR MEDICINE
PUBLISHER: HUMANA PRESS INC, 999 RIVERVIEW DR, STE 208, TOTOWA, NJ 07512-1165 USA
ISBN: 1-58829-140-5 LIBRARY OF CONGRESS ID: 2003044968
LANGUAGE: English DOCUMENT TYPE: ARTICLE

11/3,AB/11 (Item 11 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

11651401 References: 32
TITLE: Heterologous expression of an immunogenic **pneumococcal** type 3 capsular polysaccharide in Lactococcus lactis
AUTHOR(S): Gilbert C (REPRINT); Robinson K; **Le Page RWF; Wells JM**
AUTHOR(S) E-MAIL: gilbert@biomserv.univ-lyon1.fr
CORPORATE SOURCE: Univ Lyon 1, Lab Microbiol & Genet Mol, Bat 405,3eme Etage,43 Blvd 11 Novembre 1918/F-69622 Villeurbanne//France/ (REPRINT); Univ Cambridge, Cortecs Ctr Vaccine Discovery, /Cambridge CB2 1QP//England/
PUBLICATION TYPE: JOURNAL
PUBLICATION: INFECTION AND IMMUNITY, 2000, V68, N6 (JUN), P3251-3260
GENUINE ARTICLE#: 316LF
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
ISSN: 0019-9567
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: In order to develop a new system for the analysis of capsular biosynthetic pathways we have explored the possibility of expressing type 3 capsular polysaccharide (CPS) from the pathogen Streptococcus **pneumoniae** in Lactococcus lactis, an unencapsulated lactic acid bacterium being developed as a vaccine delivery vehicle for mucosal immunization. Only three of the four type 3 CPS biosynthesis genes were found to be necessary for the abundant formation (120 mg liter(-1)) of an extracellular type 3 CPS in L. lactis, implying a role for the type 3-specific synthase in the extracellular transport of the CPS or implying the existence of an alternative export system in L. lactis, The authenticity of the expressed heterologous polysaccharide was established by chemical and immunological analyses. Proton and carbon nuclear magnetic resonance spectroscopy of CPSs purified from L. lactis and S. **pneumoniae** showed that the two CPS structures were identical. When mice were immunized intraperitoneally with 3.5 x 10(6) CFU of live recombinant lactococci expressing a total of approximately 0.5 mu g of type 3 CPS, the immune responses elicited appeared identical to those observed in mice inoculated with 0.5 mu g of type 3 CPS purified from S. **pneumoniae**. These findings show that L. lactis is a useful host in which to study the role and function of genes involved in the production of bacterial capsules. Additionally, L. lactis shows potential as a host for the safe production of capsule antigens and as a vaccine delivery vehicle for polysaccharide antigens.

11/3,AB/12 (Item 12 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

04805855 References: 44
TITLE: PATHOGENS AND PREDICTORS OF FATAL SEPTICEMIA ASSOCIATED WITH HUMAN IMMUNODEFICIENCY VIRUS INFECTION IN IVORY-COAST, WEST-AFRICA
AUTHOR(S): VUGIA DJ; KIEHLBAUCH JA; YEBOUE K; NGBICHI JM; LACINA D; MARAN M ; GONDO M; KOUADIO K; KADIO A; LUCAS SB; KESTENS L; CRAWFORD JT; **WELLS JG**; BRATTEGAARD K; DECOCK KM; GRIFFIN PM

CORPORATE SOURCE: CTR DIS CONTROL & PREVENT,NATL CTR INFECT DIS,DIV BACTERIAL & MYCOT DIS,ENTER DIS BRANCH/ATLANTA//GA/30333 (Reprint); UNIV ABIDJAN,FAC MED/ABIDJAN//COTE IVOIRE/; UNIV COLL & MIDDLESEX SCH MED,DEPT HISTOPATHOL/LONDON//ENGLAND/; INST TROP MED,PATHOL & IMMUNOL/ANTWERP//BELGIUM/; CTR DIS CONTROL & PREVENT,NATL CTR INFECT DIS,DIV BACTERIAL & MYCOT DIS,RESP DIS BRANCH/ATLANTA//GA/30333; CTR DIS CONTROL & PREVENT,NATL CTR INFECT DIS,DIV HIV AIDS,INT ACT/ATLANTA//GA/30333; UNIV ABIDJAN,RETRO-C1 PROJET/ABIDJAN//COTE IVOIRE/
PUBLICATION: JOURNAL OF INFECTIOUS DISEASES, 1993, V168, N3 (SEP), P564-570
GENUINE ARTICLE#: LU337
ISSN: 0022-1899
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: In East Africa, bacteremia is more common in hospitalized human immunodeficiency virus (HIV) type 1-positive than -negative patients. In 1991, blood cultures and clinical and laboratory data were obtained from 319 patients in Ivory Coast, where both HIV-1 and -2 infections occur. Forty-three bacterial, 10 mycobacterial, and 8 fungal pathogens were isolated from blood of 54 patients (17%). Pathogens isolated significantly (P less-than-or-equal-to .05) more frequently from HIV-positive than -negative patients were nonmycobacterial bacteria, particularly Salmonella enteritidis; mycobacteria, particularly Mycobacterium tuberculosis-Mycobacterium bovis; and yeast or fungus. HIV-1 or -2 positivity was associated with a 3-fold increased risk for septicemia (P < .02). HIV-positive patients with fever or with lymphocyte counts < 1000 were more likely to be septicemic than those without these characteristics. Mortality increased significantly with HIV positivity (40% vs. 14%, P < .001) and, among HIV-positive patients, with having pathogens isolated from blood (63% vs. 33%, P < .001).

11/3,AB/13 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01511325
SECRETED STREPTOCOCCUS **PNEUMONIAE** PROTEINS
SEKRETIERTE STREPTOCOCCUS **PNEUMONIAE** PROTEINE
PROTEINES
PATENT ASSIGNEE:
MICROBIAL TECHNICS LIMITED, (1944300), 20 Trumpington Street, Cambridge, CB2 1QA, (GB), (Applicant designated States: all)
Provalis UK Limited, (930085), Newtech Square, Deeside Industrial Park, Deeside, Flintshire CH5 2NT, (GB), (Applicant designated States: all)
INVENTOR:
LE PAGE, Richard, William, Falla, Gonville & Caius College, Cambridge CB2 1TA, (GB)
BADCOCK, Daniel, 3 Batten House, The Drive, Walthamstow, London E17 3BX, (GB)
SIZER, Philip, James, Holden, Provalis UK Limited, Newtech Square, Deeside Industrial Park, Deeside, Flintshire CH5 2NT, (GB)
PEEK, Keith, Provalis UK Limited, Newtech Square, Deeside Industrial Park , Deeside, Flintshire CH5 2NT, (GB)
WELLS, Jeremy, Mark, Institute of Food Research, Norwich Laboratory , Colney, Norwich NR4 7UA, (GB)
HANNIFFY, Sean, Bosco, Institute of Food Research, Norwich Laboratory, Colney, Norwich NR4 7UA, (GB
LEGAL REPRESENTATIVE:
Chapman, Paul William et al (73612), Kilburn & Strode, 20 Red Lion Street

, London WC1R 4PJ, (GB)
PATENT (CC, No, Kind, Date): EP 1377605 A2 040107 (Basic)
WO 2002079241 021010
APPLICATION (CC, No, Date): EP 2002708512 020328; WO 2002GB1480 020328
PRIORITY (CC, No, Date): GB 108079 010330
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: C07K-014/195
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English

11/3,AB/14 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01298331
NUCLEIC ACIDS AND PROTEINS FROM GROUP B STREPTOCOCCUS
NUKLEINSAUREN UND PROTEINE AUS GRUPPE-B STREPTOCOCCUS
ACIDES NUCLEIQUES ET PROTEINES PROVENANT DES STREPTOCOQUES DU GROUPE B
PATENT ASSIGNEE:
Microbial Technics Limited, (1944301), 38 Station Road, Cambridge CB1 2JH , (GB), (Applicant designated States: all)
INVENTOR:
LE PAGE, Richard W. F. University of Cambridge, Dept. of Pathology Tennis Court Road, Cambridge CB2 1QP, (GB)
WELLS, Jeremy Mark Institute of Food Research, Norwich Laboratory Norwich Research Park, Colney Norwich NR4 7UA, (GB)
HANNIFFY, Sean Bosco University of Cambridge, Dept. of Pathology Tennis Court Road, Cambridge CB2 1QP, (GB
LEGAL REPRESENTATIVE:
Chapman, Paul William et al (73612), Kilburn & Strode, 20 Red Lion Street , London WC1R 4PJ, (GB)
PATENT (CC, No, Kind, Date): EP 1214417 A2 020619 (Basic)
WO 200132882 010510
APPLICATION (CC, No, Date): EP 2000958822 000907; WO 2000GB3437 000907
PRIORITY (CC, No, Date): GB 9921125 990907
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: C12N-015/31; C12Q-001/68; C12N-001/21; C07K-014/315; C07K-016/12; A61K-039/09; A61K-048/00; G01N-033/53; G01N-033/68
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English

11/3,AB/15 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01216278
STREPTOCOCCUS **PNEUMONIAE** ANTIGENS
STREPTOCOCCUS **PNEUMONIAE** ANTIGENE
PROTEINES
PATENT ASSIGNEE:

Provalis UK Limited, (930086), Newtech Square, Deeside Industrial Park, Deeside, Clwyd CH5 2NT, (GB), (Applicant designated States: all)
INVENTOR:
CRIPPS, Alan, William, 133 Lambrigg Street, Farrer, ACT 2607, (AU)
KYD, Jennelle, Maree, 6 Bugg Crescent, McKeller, ACT 2617, (AU)
JOMAA, Maha, 21 Burdett Crescent, Theodore, ACT 2905, (AU)
WELLS, Jeremy Mark, Institute of Food Research, Norwich Lab., Norwich Research Park, Colney, Norwich NR4 7UA, (GB)
HANSBRO, Phillip, Michael, Department of Microbiology, University of Newcastle, NSW 2300, (AU
LEGAL REPRESENTATIVE:
Chapman, Paul William et al (73612), Kilburn & Strode, 20 Red Lion Street , London WC1R 4PJ, (GB)
PATENT (CC, No, Kind, Date): EP 1165795 A2 020102 (Basic)
WO 200058475 001005
APPLICATION (CC, No, Date): EP 2000912834 000327; WO 2000GB1167 000327
PRIORITY (CC, No, Date): GB 9907114 990326; GB 9928678 991203
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: C12N-015/31; C07K-014/315; C07K-016/12; C12Q-001/68; G01N-033/53; A61K-039/09
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English

11/3,AB/16 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01135097
NUCLEIC ACIDS AND PROTEINS FROM STREPTOCOCCUS **PNEUMONIAE**
NUKLEINSAUREN UND ENTSPRECHENDE PROTEINE AUS STREPTOCOCCUS **PNEUMONIAE**
ACIDES NUCLEIQUES ET PROTEINES DE STREPTOCOCCUS **PNEUMONIAE**
PATENT ASSIGNEE:
MICROBIAL TECHNICS LIMITED, (1944300), 20 Trumpington Street, Cambridge, CB2 1QA, (GB), (Applicant designated States: all)
INVENTOR:
LE PAGE, Richard, William, Falla, University of Cambridge, Tennis Court Road, Cambridge CB2 1QP, (GB)
WELLS, Jeremy, Mark, Actinova Ltd., 12 Pembroke Avenue, Waterbeech, Cambridge CB5 9PB, (GB)
HANNIFFY, Sean, Bosco, University of Cambridge, Tennis Court Road, Cambridge CB2 1QP, (GB)
HANSBRO, Philip, Michael, CBVT Dis. Immun.Microbio, D. Maddison C. Scie. Building Royal Newcastle Hosp, Newcastle NSW 2300, (AU
LEGAL REPRESENTATIVE:
Chapman, Paul William et al (73612), Kilburn & Strode, 20 Red Lion Street , London WC1R 4PJ, (GB)
PATENT (CC, No, Kind, Date): EP 1144640 A2 011017 (Basic)
EP 1144640 A3 011128
WO 200006738 000210
APPLICATION (CC, No, Date): EP 99934990 990727; WO 99GB2452 990727
PRIORITY (CC, No, Date): GB 9816336 980727; US 125329 P 990319
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
RELATED DIVISIONAL NUMBER(S) - PN (AN):
(EP 2005019268)
INTERNATIONAL PATENT CLASS: C12N-015/31; C07K-014/315; C07K-016/12;

A61K-031/70; A61K-039/09; G01N-033/53; G01N-033/68; C12Q-001/68
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English

11/3,AB/17 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01135096
STREPTOCOCCUS **PNEUMONIAE** PROTEINS AND NUCLEIC ACID MOLECULES
STREPTOCOCCUS **PNEUMONIAE** PROTEINE UND NUKLEINSAUREN
PROTEINES DE STREPTOCOCCUS **PNEUMONIAE** ET MOLECULES D'ACIDE NUCLEIQUE
PATENT ASSIGNEE:
MICROBIAL TECHNICS LIMITED, (1944300), 20 Trumpington Street, Cambridge, CB2 1QA, (GB), (Applicant designated States: all)
INVENTOR:
GILBERT, Christophe Francois Guy, Universite Lyon 1 43, Blvd du 11 Novembre 1918, F-69622 Villeurbanne Cedex, (FR)
HANSBRO, Philip Michael, Royal Newcastle Hospital, Newcastle NSW 2300, (AT
LEGAL REPRESENTATIVE:
Chapman, Paul William et al (73612), Kilburn & Strode, 20 Red Lion Street , London WC1R 4PJ, (GB)
PATENT (CC, No, Kind, Date): EP 1100921 A2 010523 (Basic)
WO 200006737 000210
APPLICATION (CC, No, Date): EP 99934989 990727; WO 99GB2451 990727
PRIORITY (CC, No, Date): GB 9816337 980727; US 125164 P 990319
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: C12N-015/31; C07K-014/315; C07K-016/12; G01N-033/50; A61K-039/09; C12Q-001/68
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English

11/3,AB/18 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01135095
NUCLEIC ACIDS AND PROTEINS FROM GROUP B STREPTOCOCCUS
NUKLEINSAUREN UND ENTSPRECHENDE PROTEINE AUS GRUPPE-B STREPTOCOCCUS
ACIDES NUCLEIQUES ET PROTEINES DE STREPTOCOCCUS GROUPE B
PATENT ASSIGNEE:
MICROBIAL TECHNICS LIMITED, (1944300), 20 Trumpington Street, Cambridge, CB2 1QA, (GB), (Applicant designated States: all)
INVENTOR:
LE PAGE, Richard, William, Falla, U. of Cambridge D. of Pathology Tennis Court Road, Cambridge CB2 1QP, (GB)
WELLS, Jeremy, Mark Institute of Food Research, Norwich Laboratory Norwich Research Park, Colney Norwich NR4 7UA, (GB)
HANNIFFY, Sean, Bosco University of Cambridge, Dept. of Pathology Tennis Court Road, Cambridge CB2 1QP, (GB
LEGAL REPRESENTATIVE:
Chapman, Paul William et al (73612), Kilburn & Strode, 20 Red Lion Street , London WC1R 4PJ, (GB)

PATENT (CC, No, Kind, Date): EP 1100920 A2 010523 (Basic)
WO 200006736 000210
APPLICATION (CC, No, Date): EP 99934984 990727; WO 99GB2444 990727
PRIORITY (CC, No, Date): GB 9816335 980727; US 125163 P 990319
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: C12N-015/31; C12N-015/74; C12N-015/62; C12N-015/10; C12N-009/16; C12N-001/19; C12N-001/21; C07K-014/315; C07K-016/12; A61K-031/70; A61K-039/09; G01N-033/53; G01N-033/68; C12Q-001/68
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English

11/3,AB/19 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0306341 DBR Accession No.: 2003-08126 PATENT
New Streptococcus **pneumoniae** protein or polypeptide, useful as an immunogen and/or antigen for use in vaccines against Streptococcus **pneumoniae** infection, and in diagnostic assays - vector-mediated recombinant protein gene transfer and expression in host cell and hybridoma cell culture for monoclonal antibody production for disease diagnosis, recombinant vaccine and gene therapy
AUTHOR: **LE PAGE R W F**; BADCOCK D; SIZER P J H; PEEK K; **WELLS J M**; **HANNIFFY S B**
PATENT ASSIGNEE: MICROBIAL TECHNICS LTD; PROVALIS UK LTD 2002
PATENT NUMBER: WO 200279241 PATENT DATE: 20021010 WPI ACCESSION NO.: 2003-103261 (200309)
PRIORITY APPLIC. NO.: GB 20018079 APPLIC. DATE: 20010330
NATIONAL APPLIC. NO.: WO 2002GB1480 APPLIC. DATE: 20020328
LANGUAGE: English
ABSTRACT: DERWENT ABSTRACT: NOVELTY - A Streptococcus **pneumoniae** protein or polypeptide (I) comprising any of the 8 fully defined sequences of 28-567 amino acids given in the specification, or its homologue, derivative, or antigenic or immunogenic fragment, is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) A nucleic acid molecule comprising: (a) any of the DNA sequences given in the specification, or their RNA equivalents; (b) a sequence which is complementary to (a); (c) a sequence which codes for (I) or its homologue, derivative or fragment; and/or (d) a sequence which is substantially identical to (a), (b) or (c); (2) An immunogenic and/or antigenic composition, comprising one or more (I) or its homologue, derivative or fragment; (3) A vaccine comprising (I) or the nucleic acid molecule, and one or more additional components such as an excipient, diluent, adjuvant or the like; (4) An antibody capable of binding to (I) or its homologue, derivative or fragment; (5) Detection or diagnosis of S. **pneumoniae**, comprising bringing into contact a sample to be tested with at least one protein or polypeptide cited above, or its homologue, derivative or fragment; the above antibody or the nucleic acid sequence; and (6) Determining whether (I) represents a potential anti-microbial target, comprising inactivating the protein or polypeptide and determining whether S. **pneumoniae** is still viable. WIDER DISCLOSURE - Also disclosed as new are: (a) Vaccinating a subject against S. **pneumoniae** infection; (b) Prophylaxis or treatment of S. **pneumoniae** infection; and (c) Kits for detecting

or diagnosing S. **pneumoniae** infection. BIOTECHNOLOGY - Preferred Protein/Polypeptide: The protein or polypeptide is provided in substantially pure form, and has the N-terminal sequence Met Glu Leu Val Leu Pro Asn Asn Tyr Val Val (Asp,Ala) Ile (Leu) Asp (Glu) Glu (Gln) Glu Glu Met Met Tyr Leu Asp Gly Gly (Glu), where the bracketed residues represent alternatives to the preceding amino acid, its fragment, homologue or derivative. Preferred Antibody: The antibody is a monoclonal antibody. Preparation: The protein/polypeptide, nucleic acid and vaccine are produced by standard recombinant techniques. The antibody can be produced by hybridoma techniques. ACTIVITY - Antibacterial; Immunostimulant. No biological data given. MECHANISM OF ACTION - Vaccine; Gene therapy. No biological data given. USE - The protein or polypeptide, or its homologue, derivative or fragment, is useful as an immunogen and/or antigen that may be used in vaccines or diagnostic assays. The methods are useful for the selection/diagnosis of S. **pneumoniae** , and determining whether a protein or polypeptide represents a potential anti-microbial target. An agent capable of antagonizing, inhibiting or otherwise interfering with the function or expression of a protein or polypeptide is useful in the manufacture of a medicament for use in the treatment or prophylaxis of S.**pneumoniae** infection (all claimed). The agent capable of antagonizing, inhibiting or interfering with the function or expression of the protein or polypeptide, is useful in the manufacture of a medicament for the treatment or prophylaxis of S. **pneumoniae** infection (claimed).EXAMPLE - No relevant examples given. (43 pages)

11/3,AB/20 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0271324 DBR Accession Number: 2001-10548 PATENT
New polypeptides derived from Streptococcus agalactiae are useful to provide detection of, and vaccination against, Group-B Streptococcus infections, particularly to prevent infection in neonatals - recombinant protein production via plasmid expression in host cell useful for Streptococcus infection and for recombinant vaccine
AUTHOR: Le Page R W F; **Wells J M; Hanniffy S B**
CORPORATE SOURCE: Cambridge, UK.
PATENT ASSIGNEE: Microbial-Technics 2001
PATENT NUMBER: WO 200132882 PATENT DATE: 20010510 WPI ACCESSION NO.: 2001-316444 (2033)
PRIORITY APPLIC. NO.: GB 9921125 APPLIC. DATE: 19990907
NATIONAL APPLIC. NO.: WO 2000GB3437 APPLIC. DATE: 20000907
LANGUAGE: English
ABSTRACT: A group-B Streptococcus protein (P1) is claimed. (P1) contains one of the sequences fully defined, or its fragment or derivative. Also claimed are: derivatives or variants having at least 50% identity to P1; a nucleic acid (N1); a vector containing N1; transforming or transfecting a host with the vector; producing a P1; an antibody or affibody or its derivative which binds to P1; an immunogenic composition containing N1 or P1; detecting if a P1 represents a potential anti-microbial target; detecting Group-B Streptococcus by bringing into contact a sample to be tested with (N1); and determining if a protein, polypeptide, peptide, fragments or derivative of them represents a potential anti-microbial target. The invention is used to vaccinate against Group-B Streptococcus infection, particularly to prevent infection in new born children arising from the maternal genital tract. An immunogenic composition is useful in the preparation

of a medicament for the treatment or prophylaxis of Group-B Streptococcus infection. (89pp)

11/3,AB/21 (Item 3 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0260993 DBR Accession Number: 2001-01508 PATENT
Novel antigens from Streptococcus **pneumoniae** of specific molecular weights useful for treatment, prophylaxis and diagnosis of Streptococcus **pneumoniae** infections - recombinant vaccine useful against Streptococcus **pneumoniae**
AUTHOR: Cripps A W; Kyd J M; Jomaa M; **Wells J M; Hansbro P M**
CORPORATE SOURCE: Deeside, UK.
PATENT ASSIGNEE: Provalis-UK 2000
PATENT NUMBER: WO 200058475 PATENT DATE: 20001005 WPI ACCESSION NO.: 2000-656168 (2063)
PRIORITY APPLIC. NO.: GB 9928678 APPLIC. DATE: 19991203
NATIONAL APPLIC. NO.: WO 2000US1167 APPLIC. DATE: 20000327
LANGUAGE: English
ABSTRACT: A protein or polypeptide (I) obtained from Streptococcus **pneumoniae** and having specific mol. weight as determined by SDS-PAGE and specific N-terminal sequence, is new. Also claimed are: a homolog or derivative (II) of (I); one or antigenic fragments (III) of (I) or (II); a nucleic acid molecule (IV) containing a DNA sequence; a vector (V) containing (IV); a host cell (VI) containing (V); an immunogenic/antigenic composition (VII) containing (I), (II) or (III); a vaccine composition (VIII) containing (IV); an antibody (IX) raised against or binding to (I), (II) or (III); a kit for detecting/diagnosing S. **pneumoniae** infection; determining if (I) represents a potential anti-microbial target; use of an agent capable of antagonizing, inhibiting otherwise interfering with the function or expression of (I) in manufacture of a medicament; and preparation of (I). (I), (II), (III), (IV) or (IX) is useful for detection/diagnosis of S. **pneumoniae**. It also useful for vaccinating subject against S. **pneumoniae** . The novel proteins, its derivatives or homologs and the nucleic acid molecules are useful in treatment of S. **pneumoniae** infection. (45pp)

11/3,AB/22 (Item 4 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0251450 DBR Accession Number: 2000-05940 PATENT
Streptococcal proteins and polynucleotides useful for diagnosis, treatment and prophylaxis of bacterial infections - recombinant vaccine, monoclonal antibody and nucleic acid vaccine
AUTHOR: **le Page R W F; Wells J M; Hanniffy S B; Hansbro P M**
CORPORATE SOURCE: Cambridge, UK.
PATENT ASSIGNEE: Microbial-Technics 2000
PATENT NUMBER: WO 200006738 PATENT DATE: 20000210 WPI ACCESSION NO.: 2000-195301 (2017)
PRIORITY APPLIC. NO.: US 125329 APPLIC. DATE: 19990319
NATIONAL APPLIC. NO.: WO 99GB2452 APPLIC. DATE: 19990727
LANGUAGE: English

ABSTRACT: Streptococcus **pneumoniae** protein (I) or polypeptide, its homolog or derivative, having one of 12 fully disclosed protein sequences, is claimed. Also claimed are: a protein of polypeptide (II), its homolog or derivative, having a defined protein sequence selected from one of the 61 sequences disclosed; an antigenic and/or immunogenic fragment of (I), (II) or a protein or polypeptide (III) having a sequence selected form 12 defined sequence; a nucleic acid molecule encoding (I), (II) or (III) and having one of the disclosed DNA sequences (or being an RNA equivalent, complement, homolog, derivative or identical sequence); an immunogenic and/or antigenic composition of (I), (II), (III) or homologs, derivatives and/or fragments; a vaccine comprising (III); an antibody capable of binding to (I), (II), (III) or a homolog, derivative or fragment; and determining the anti-microbial activity of (I), (II) and (III) by inactivating the protein and determining the viability of S. **pneumoniae**. The DNA sequence can be used as a nucleic acid vaccine or in diagnosis. The antibody is preferably a monoclonal antibody produced by hybridoma cell culture. (76pp)

11/3,AB/23 (Item 5 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0251449 DBR Accession Number: 2000-05939 PATENT
New Streptococcal protein, useful as a vaccine, for diagnosis of **pneumococcal** diseases and for screening agents capable of antagonizing or inhibiting expression of the protein - recombinant vaccine, monoclonal antibody and nucleic acid vaccine
AUTHOR: Gilbert C F G; **Hansbro P M**
CORPORATE SOURCE: Cambridge, UK.
PATENT ASSIGNEE: Microbial-Technics 2000
PATENT NUMBER: WO 200006737 PATENT DATE: 20000210 WPI ACCESSION NO.: 2000-195300 (2017)
PRIORITY APPLIC. NO.: US 125164 APPLIC. DATE: 19990319
NATIONAL APPLIC. NO.: WO 99GB2451 APPLIC. DATE: 19990727
LANGUAGE: English
ABSTRACT: Streptococcus **pneumoniae** protein (I) or polypeptide having a disclosed 162 amino acid protein sequence is claimed. Also claimed are: a protein of polypeptide (II); homologs or derivatives of (I) or (II); an antigenic and/or immunogenic fragment of (I) or a protein or polypeptide (III) having one of 16 disclosed protein sequences; a nucleic acid molecule (IV) encoding (I) (150 DNA or RNA sequences disclosed); a sequence complementary to (IV); a sequence encoding the same protein as (IV); a sequence with high homology to (IV); a sequence encoding a homolog, derivative or fragment of a disclosed protein; an immunogenic and/or antigenic composition of (I), its homologs or fragments; a vaccine comprising one or more sequences of (IV) or (III); an antibody capable of binding to (I), a homolog or derivative or fragment; and determining whether (I) or (III) represents a potential anti-microbial target involving inactivating (I) or (III) and determining whether S. **pneumoniae** is still viable in vitro or in vivo. The DNA sequence can be used as a nucleic acid vaccine or in diagnosis. The antibody is preferably a monoclonal antibody produced by hybridoma cell culture. (108pp)

11/3,AB/24 (Item 6 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0251448 DBR Accession Number: 2000-05938 PATENT
New group B Streptococcus protein, useful as vaccine for diagnosis of Streptococcal infections and for screening of antibodies or affibodies - recombinant vaccine and nucleic acid vaccine
AUTHOR: **le Page R W F; Wells J M; Hanniffy S B**
CORPORATE SOURCE: Cambridge, UK.
PATENT ASSIGNEE: Microbial-Technics 2000
PATENT NUMBER: WO 200006736 PATENT DATE: 20000210 WPI ACCESSION NO.: 2000-195299 (2017)
PRIORITY APPLIC. NO.: US 125163 APPLIC. DATE: 19990319
NATIONAL APPLIC. NO.: WO 99GB2444 APPLIC. DATE: 19990727
LANGUAGE: English
ABSTRACT: A group B Streptococcus (GBS) (Staphylococcus aureus, Streptococcus sp. or Streptococcus **pneumoniae**) protein or polypeptide or peptide (I) having one of 69 disclosed protein sequences or 11 oligonucleotide DNA primers (III) of defined DNA sequence and their fragments or derivatives is claimed. Also claimed are: derivatives or variants of (I) having at least 50% homology to (I); a nucleic acid molecule having one of the disclosed DNA sequences or their RNA equivalents; a sequence complementary to the disclosed DNA sequences; a sequence encoding (I); a sequence with identity to the claimed sequences; a sequence which encodes a derivative or fragment of the disclosed nucleic acid molecules; a vector comprising DNA for expression of (I) or variants of (I); a host cell suitable for transformation; an antibody, an affibody or their derivative which binds to one or more of (I) or its variants; a kit for detecting GBS comprising at least one (I), (I) variant or an antibody or affibody derivative; screening for DNA encoding a bacterial cell envelope associated or surface antigens in Gram-pos. bacteria; and determining if (I) or its variant is a drug target. (123pp)

11/3,AB/25 (Item 7 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0227970 DBR Accession Number: 98-09567 PATENT
New non-invasive or non-pathogenic Gram-positive bacteria - containing DNA which encodes enzymes for production of a polysaccharide immunogen of a pathogenic bacteria, used as a recombinant vaccine
AUTHOR: **Wells J M; le Page R W F;** Gilbert C F G
CORPORATE SOURCE: Cambridge, UK.
PATENT ASSIGNEE: Microbial-Technics 1998
PATENT NUMBER: WO 9831786 PATENT DATE: 980723 WPI ACCESSION NO.: 98-414088 (9835)
PRIORITY APPLIC. NO.: GB 97939 APPLIC. DATE: 970117
NATIONAL APPLIC. NO.: WO 98GB156 APPLIC. DATE: 980119
LANGUAGE: English
ABSTRACT: Claimed is (A) a non-invasive/non-pathogenic Gram-pos. bacterium which is transformed with DNA coding for one or more enzymes responsible for the production of a polysaccharide immunogen (PSI) from a pathogenic bacterium. Also claimed are: (B) a method for the production of a pathogenic bacterium PSI which comprises transforming a non-invasive or non-pathogenic Gram-pos. bacterium with DNA which codes for one or more enzymes responsible for the production of the PSI and/or culturing the bacterium; (C) a DNA construct comprising DNA encoding one or more enzymes responsible for the production of a PSI

from a pathogenic bacterium; (D) a vector comprising a DNA construct as in (C). The products can be used in vaccines against polysaccharide encapsulated pathogenic bacteria, e.g. Streptococcus **pneumoniae**, etc.. Suitable Gram-pos. bacteria include Listeria innocua, Staphylococcus xylosus, Staphylococcus carnosus, Streptococcus gordonii, Lactococcus sp. or Lactobacillus sp.. Alternatively, attenuated strains of a Gram-pos. pathogenic bacterium, e.g. vaccine strains of Listeria, e.g. Listeria monocytogenes can be used. (39pp)

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? show files
File  65:Inside Conferences 1993-2005/Oct W4
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File 440:Current Contents Search(R) 1990-2005/Oct 31
         (c) 2005 Inst for Sci Info
File 348:EUROPEAN PATENTS 1978-2005/Oct W04
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File 357:Derwent Biotech Res. _1982-2005/Oct W5
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S1        216   AU=(LEPAGE, R? OR LE PAGE, R? OR LEPAGE R? OR LE PAGE R?)
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             S?)
S4         35   AU=(HANSBRO, P? OR HANSBRO P?)
S5          2   S1 AND S2 AND S3 AND S4
S6         53   S1 AND (S2 OR S3 OR S4)
S7         16   S2 AND (S3 OR S4)
S8          2   S3 AND S4
S9         89   (S6 OR S1 OR S2 OR S3 OR S4) AND (PNEUMONIAE OR PNEUMOCOCC-
              ?)
S10        97   S5 OR S7 OR S8 OR S9
S11        25   RD (unique items)
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Devi, S.
09/769744

FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC, PHIN, TOXCENTER, PASCAL, FEDRIP, DISSABS' ENTERED AT 11:16:51 ON 01 NOV 2005

- Author (s)

L1	21	SEA ABB=ON	PLU=ON	("LE PAGE W"? OR "LEPAGE W"?)/AU
L2	9961	SEA ABB=ON	PLU=ON	"WELLS J"?/AU
L3	0	SEA ABB=ON	PLU=ON	"HANNIFY B"?/AU
L4	77	SEA ABB=ON	PLU=ON	"HANSBRO P"?/AU
L5	0	SEA ABB=ON	PLU=ON	"HANNIFFY B"?/AU
L6	24	SEA ABB=ON	PLU=ON	"HANNIFFY S"?/AU
L7	0	SEA ABB=ON	PLU=ON	L1 AND L2 AND L6 AND L4
L8	0	SEA ABB=ON	PLU=ON	L1 AND (L2 OR L6 OR L4)
L9	23	SEA ABB=ON	PLU=ON	L2 AND (L4 OR L6)
L10	2	SEA ABB=ON	PLU=ON	L4 AND L6
L11	63	SEA ABB=ON	PLU=ON	(L1 OR L2 OR L4 OR L6) AND (PNEUMONIAE OR PNEUMOCOCC?)
L12	77	SEA ABB=ON	PLU=ON	L9 OR L10 OR L11
L13	29	DUP REM L12	(48 DUPLICATES REMOVED)	

L13 ANSWER 1 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:638664 CAPLUS
DOCUMENT NUMBER: 143:151867
TITLE: Pneumocystis carinii polypeptide crossreacts with surface protein A of Streptococcus **pneumoniae**
INVENTOR(S): Gigliotti, Francis; Wright, Terry W.; Haidaris, Constantine G.; Simpsonhaidaris, Patricia J.; **Wells, Jesse**
PATENT ASSIGNEE(S): University of Rochester, USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005065382	A2	20050721	WO 2004-US43959	20041231

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-533788P P 20031231

AB The authors disclose that a monoclonal antibody 4F11, directed against the KEX1 protease of P, carinii, reacts with a second proline-rich protein of Pneumocystis and the **pneumococcal** surface protein A of Streptococcus **pneumoniae**. Addnl., the 4F11 antibody demonstrates cross-protective immunity in streptococcal infection.

L13 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:326908 CAPLUS
DOCUMENT NUMBER: 143:20809
TITLE: Evidence that the essential response regulator YycF in Streptococcus **pneumoniae** modulates expression of fatty acid biosynthesis genes and alters membrane composition
AUTHOR(S): Mohedano, M. Luz; Overweg, Karin; de la Fuente, Alicia; Reuter, Mark; Altabe, Silvia; Mulholland, Francis; de Mendoza, Diego; Lopez, Paloma; **Wells, Jerry M.**
CORPORATE SOURCE: Departamento de Estructura y Funcion de Proteinas, Centro de Investigaciones Biologicas (CSIC), Madrid, Spain
SOURCE: Journal of Bacteriology (2005), 187(7), 2357-2367
CODEN: JOBAAY; ISSN: 0021-9193
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The YycFG two-component system, originally identified in Bacillus subtilis, is highly conserved among gram-pos. bacteria with low G+C contents. In Streptococcus **pneumoniae**, the YycF response regulator has been reported to be essential for cell growth, but the signal to which it responds and the gene members of the regulon remain unclear. In order to investigate the role of YycFG in S. **pneumoniae**, we increased the expression of yycF by using a maltose-inducible vector and analyzed the genome-wide effects on transcription and protein expression during the course of yycF expression. The induction of yycF expression increased histidine kinase yycG transcript levels, suggesting an autoregulation of the yycFG operon. Evidence from both proteomic and microarray transcriptome studies as well as analyses of membrane fatty acid composition indicated that YycFG is involved in the regulation of fatty acid biosynthesis pathways and in determining fatty acid chain lengths in membrane lipids. In agreement with recent transcriptome data on **pneumococcal** cells depleted of YycFG, we also identified several other potential members of the YycFG regulon that are required for virulence and cell wall biosynthesis and metabolism
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2005:229525 CAPLUS
DOCUMENT NUMBER: 142:334603
TITLE: Characterization of a novel leucine-rich repeat protein antigen from group B streptococci that elicits protective immunity
AUTHOR(S): Seepersaud, Ravin; **Hanniffy, Sean B.**; Mayne, Peter; Sizer, Phil; Le Page, Richard; **Wells, Jerry M.**
CORPORATE SOURCE: Cortecs Centre for Vaccine Discovery, Department of Pathology, University of Cambridge, Cambridge, UK
SOURCE: Infection and Immunity (2005), 73(3), 1671-1683
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Group B streptococci (GBS) usually behave as commensal organisms that

asymptomatically colonize the gastrointestinal and urogenital tracts of adults. However, GBS are also pathogens and the leading bacterial cause of life-threatening invasive disease in neonates. While the events leading to transmission and disease in neonates remain unclear, GBS carriage and level of colonization in the mother have been shown to be significant risk factors associated with invasive infection. Surface antigens represent ideal vaccine targets for eliciting antibodies that can act as opsonins and/or inhibit colonization and invasion. Using a genetic screen for exported proteins in GBS, we identified a gene, designated lrrG, that encodes a novel LPXTG anchored surface antigen containing leucine-rich repeat (LRR) motifs found in bacterial invasins and other members of the LRR protein family. Southern blotting showed that lrrG was present in all GBS strains tested, representing the nine serotypes, and revealed the presence of an lrrG homolog in Streptococcus pyogenes. Recombinant LrrG protein was shown in vitro to adhere to epithelial cells in a dose-dependent manner, suggesting that it may function as an adhesion factor in GBS. More importantly, immunization with recombinant LrrG elicited a strong IgG response in CBA/ca mice and protected against lethal challenge with virulent GBS. The data presented in this report suggest that this conserved protein is a highly promising candidate antigen for use in a GBS vaccine.

REFERENCE COUNT: 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2004:615881 CAPLUS
DOCUMENT NUMBER: 141:344315
TITLE: Relationship between codon biased genes, microarray expression values and physiological characteristics of Streptococcus **pneumoniae**
AUTHOR(S): Martin-Galiano, Antonio J.; **Wells, Jerry M.**; De La Campa, Adela G.
CORPORATE SOURCE: Unidad de Genetica Bacteriana (CSIC), Centro Nacional de Microbiologia, Instituto de Salud Carlos III, Madrid, 28220, Spain
SOURCE: Microbiology (Reading, United Kingdom) (2004), 150(7), 2313-2325
CODEN: MROBEO; ISSN: 1350-0872
PUBLISHER: Society for General Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A codon-profile strategy was used to predict gene expression levels in Streptococcus **pneumoniae**. Predicted highly expressed (PHE) genes included those encoding glycolytic and fermentative enzymes, sugar-conversion systems and carbohydrate-transporters. Addnl., some genes required for infection that are involved in oxidative metabolism and hydrogen peroxide production were PHE. Low expression values were predicted for genes encoding specific regulatory proteins like two-component systems and competence genes. Correspondence anal. localized 484 ORFs which shared a distinctive codon profile in the right horn. These genes had a mean G + C content (33·4 %) that was lower than the bulk of the genome coding sequences (39·7 %), suggesting that many of them were acquired by horizontal transfer. Half of these genes (242) were pseudogenes, ORFs shorter than 80 codons or without assigned function. The remaining genes included several virulence factors, such as capsular genes, iga, lytB, nanB,

pspA, choline-binding proteins, and functions related to DNA acquisition, such as restriction-modification systems and comDE. In order to compare predicted translation rate with the relative amts. of mRNA for each gene, the codon adaptation index (CAI) values were compared with microarray fluorescence intensity values following hybridization of labeled RNA from laboratory-grown cultures. High mRNA amts. were observed in 32·5 % of PHE genes and in 64 % of the 25 genes with the highest CAI values. However, high relative amts. of RNA were also detected in 10·4 % of non-PHE genes, such as those encoding fatty acid metabolism enzymes and proteases, suggesting that their expression might also be regulated at the level of transcription or mRNA stability under the conditions tested. The effects of codon bias and mRNA amount on different gene groups in S. **pneumoniae** are discussed.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2004:184293 CAPLUS
DOCUMENT NUMBER: 140:285847
TITLE: Epitope mapping of a protective monoclonal antibody against Pneumocystis carinii with shared reactivity to Streptococcus **pneumoniae** surface antigen PspA
AUTHOR(S): **Wells, Jesse**; Gigliotti, Francis; Simpson-Haidaris, Patricia J.; Haidaris, Constantine G.
CORPORATE SOURCE: Departments of Microbiology and Immunology, University of Rochester School of Medicine and Dentistry, Rochester, NY, 14642, USA
SOURCE: Infection and Immunity (2004), 72(3), 1548-1556
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Pneumocystis carinii is an opportunistic fungal pathogen that causes pneumonia in the immunocompromised host. A protective monoclonal antibody (MAb) termed 4F11 generated against mouse-derived P. carinii was shown by indirect immunofluorescence assay (IFA) to bind surface antigens of P. carinii derived from multiple host species, including humans. The authors have identified multiple epitopes recognized by MAb 4F11 in two recombinant mouse P. carinii antigens. The epitopes mapped have similar proline content and pos. charge distribution. The consensus 8-mer epitope recognized by MAb 4F11 is K/RPA/RPK/QPA/TP. Immune sera raised against intact mouse P. carinii recognized native antigens affinity purified with MAb 4F11 and a recombinant antigen reactive with MAb 4F11. Database searches for short, nearly exact matches to the mapped MAb 4F11 epitopes identified a bacterial surface antigen, Streptococcus **pneumoniae** PspA, with a similar proline-rich region. In an IFA, MAb 4F11 detected antigens on the S. **pneumoniae** surface, and Western blotting identified a protein in S. **pneumoniae** lysates consistent with the Mr of PspA. A fragment of the S. **pneumoniae** PspA gene was cloned and sequenced, and the deduced amino acid sequence contained a region with strong similarity to the MAb 4F11 epitopes identified in P. carinii. The PspA recombinant polypeptide was recognized by MAb 4F11 in a Western blot. The ability of MAb 4F11 to recognize similar proline-rich epitopes may explain its ability to recognize P. carinii

derived from multiple hosts and will permit testing of the epitopes recognized by this antibody in immunization against P. carinii.
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2004:177180 CAPLUS
DOCUMENT NUMBER: 140:265509
TITLE: Interconnection of competence, stress and CiaR regulons in Streptococcus **pneumoniae**: Competence triggers stationary phase autolysis of ciaR mutant cells
AUTHOR(S): Dagkessamanskaia, Adilia; Moscoso, Miriam; Henard, Vincent; Guiral, Sebastien; Overweg, Karin; Reuter, Mark; Martin, Bernard; **Wells, Jerry**; Claverys, Jean-Pierre
CORPORATE SOURCE: Laboratoire de Microbiologie et Genetique Moleculaires, UMR 5100 CNRS-Universite Paul Sabatier, Toulouse, 31062, Fr.
SOURCE: Molecular Microbiology (2004), 51(4), 1071-1086
CODEN: MOMIEE; ISSN: 0950-382X
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Of the 13 two-component signal transduction systems (TCS) identified in Streptococcus **pneumoniae**, two, ComDE and CiaRH, are known to affect competence for natural genetic transformation. ComD and ComE act together with the comC-encoded competence-stimulating peptide (CSP) and with ComAB, the CSP-dedicated exporter, to coordinate activation of genes required for differentiation to competence. Several lines of evidence suggest that the CiaRH TCS and competence regulation are interconnected, including the observation that inactivation of the CiaR response regulator derepresses competence. However, the nature of the interconnection remains poorly understood. Interpretation of previous transcriptome analyses of ciaR mutants was complicated by competence derepression in the mutants. To circumvent this problem, we have used microarray anal. to investigate the transition from non-competence to competence in a comC-null wild-type strain and its ciaR derivative after the addition of CSP. This study increased the number of known CSP-induced genes from ≈47 to 105 and revealed ≈42 genes with reduced expression in competent cells. Induction of the CiaR regulon, as well as the entire HrcA and part of the CtsR stress response regulons, was observed in wild-type competent cells. Enhanced induction of stress response genes was detected in ciaR competent cells. In line with these observations, CSP was demonstrated to trigger growth arrest and stationary phase autolysis in ciaR cells. Taken together, these data strongly suggest that differentiation to competence imposes a temporary stress on cells, and that the CiaRH TCS is required for the cells to exit normally from the competent state.
REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 2004:1027345 CAPLUS
DOCUMENT NUMBER: 142:174883
TITLE: Glycolytic enzymes associated with the cell

surface of Streptococcus **pneumoniae** are antigenic in humans and elicit protective immune responses in the mouse

AUTHOR(S): Ling, E.; Feldman, G.; Portnoi, M.; Dagan, R.; Overweg, K.; Mulholland, F.; Chalifa-Caspi, V.; **Wells, J.**; Mizrachi-Nebenzahl, Y.

CORPORATE SOURCE: Pediatric Infectious Disease Unit, Soroka University Medical Center and the Department of Microbiology and Immunology Ben Gurion University of the Negev, Beer Sheva, Israel

SOURCE: Clinical and Experimental Immunology (2004), 138(2), 290-298
CODEN: CEXIAL; ISSN: 0009-9104

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Streptococcus **pneumoniae** is a leading cause of otitis media, sinusitis, pneumonia, bacteremia and meningitis worldwide. The drawbacks associated with the limited number of various capsular polysaccharides that can be included in the polysaccharide-based vaccines focuses much attention on **pneumococcal** proteins as vaccine candidates. We extracted an enriched cell wall fraction from S. **pneumoniae** WU2. Approx. 150 soluble proteins could be identified by 2D gel electrophoresis. The proteins were screened by 2D-Western blotting using sera that were obtained longitudinally from children attending day-care centers at 18, 30 and 42 mo of age and sera from healthy adult volunteers. The proteins were further identified using matrix-assisted laser desorption ionization-time of flight mass spectrometry. Seventeen proteins were antigenic in children and adults, of which 13 showed an increasing antibody response with age in all eight children analyzed. Two immunogenic proteins, fructose-bisphosphate aldolase (FBA) and glyceraldehyde-3-phosphate dehydrogenase (GAPDH), and a control protein with known low immunogenicity, heat shock protein 70 (DnaK), were expressed in Escherichia coli, purified and used to immunize mice. Mouse antibodies elicited to the recombinant (r) FBA and rGAPDH were cross-reactive with several genetically unrelated strains of different serotypes and conferred protection to respiratory challenge with virulent **pneumococci**. In addition, the FBA used in this study (NP_345117) does not have a human ortholog and warrants further investigation as a candidate for a **pneumococcal** vaccine. In conclusion, the immunoproteomics based approach utilized in the present study appears to be a suitable tool for identification of novel S. **pneumoniae** vaccine candidates.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 29 MEDLINE on STN DUPLICATE 7

ACCESSION NUMBER: 2004089761 MEDLINE

DOCUMENT NUMBER: PubMed ID: 14979496

TITLE: Genetic background affects susceptibility in nonfatal **pneumococcal** bronchopneumonia.

AUTHOR: Preston J A; Beagley K W; Gibson P G; **Hansbro P M**

CORPORATE SOURCE: Discipline of Immunology & Microbiology, School of Biomedical Sciences, Faculty of Health, University of Newcastle, New South Wales, Australia.

SOURCE: European respiratory journal : official journal of the

European Society for Clinical Respiratory Physiology, (2004 Feb) 23 (2) 224-31.
Journal code: 8803460. ISSN: 0903-1936.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200408
ENTRY DATE: Entered STN: 20040225
Last Updated on STN: 20040827
Entered Medline: 20040826

AB A nonfatal **pneumococcal** lung infection model was required to investigate immune responses during recovery, and the interaction of other diseases subsequent to infection. A murine model of nonfatal **pneumococcal** lung infection was developed and the effect of genetic background on susceptibility was determined in BALB/c and C57BL/6 mice. Bacteria colonised the lungs and mice developed mild clinical illness with pathophysiology similar to human bronchopneumonia. Recovery was associated with immune cell influx, which cleared bacteria but induced tissue damage characteristic of **pneumococcal** bronchopneumonia. After clearance, immune cell populations returned to normal and tissues appeared less inflamed. Although bacterial exposure and clearance were similar, the extent of immune cell influx and tissue damage differed significantly. Larger numbers of neutrophils and lymphocytes entered lung tissue and the affected area was greater in BALB/c compared with C57BL/6 mice. An inflammatory basis for differences was determined with greater levels of phagocytosis and oxidative burst observed in BALB/c mice. C57BL/6 mice cleared the low inoculum with a reduced immune response; however, C57BL/6 mice are more susceptible to larger inocula, which overwhelms the immune system. These different susceptibilities result from a greater inflammatory response in BALB/c compared with C57BL/6 mice.

L13 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 2004:213173 CAPLUS
DOCUMENT NUMBER: 140:355355
TITLE: Role of atypical bacterial infection of the lung in predisposition/protection of asthma
AUTHOR(S): **Hansbro, Philip M.**; Beagley, Kenneth W.; Horvat, Jay C.; Gibson, Peter G.
CORPORATE SOURCE: Faculty of Health, School of Biomedical Sciences, Discipline of Immunology and Microbiology, University of Newcastle, Newcastle, 2308, Australia
SOURCE: Pharmacology & Therapeutics (2004), 101(3), 193-210
CODEN: PHTHDT; ISSN: 0163-7258
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. Asthma is a common inflammatory disease of the airways that results in airway narrowing and wheezing. Allergic asthma is characterized by a T-helper cell-type (Th) 2 response, IgE production, and eosinophilic influx into the airways. Recently, many clin. studies have implicated Mycoplasma **pneumoniae** and Chlamydia **pneumoniae** in the development and exacerbation of both chronic and acute asthma. It is widely accepted that M. **pneumoniae** and C. **pneumoniae** infections require Th1 immunity for clearance; therefore, according to the hygiene hypothesis, these

infections should be protective against asthma. Here, the authors review the clin. evidence for the association and mechanisms of predisposition to and protection against asthma by these infections. The authors will examine the following question: Is it the absence of infection or the age of the individual on infection that confers susceptibility or resistance to asthma and does this vary between normal and predisposed individuals the authors put forward a hypothesis of the effects of these infections on the development and prevention of asthma and how novel preventative and treatment strategies involving these microbes may be targeted against asthma.

REFERENCE COUNT: 157 THERE ARE 157 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 10 OF 29 MEDLINE on STN DUPLICATE 9

ACCESSION NUMBER: 2004592914 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15566975
TITLE: Potential and opportunities for use of recombinant lactic acid bacteria in human health.
AUTHOR: **Hanniffy Sean**; Wiedermann Ursula; Repa Andreas; Mercenier Annick; Daniel Catherine; Fioramonti Jean; Tlaskolova Helena; Kozakova Hana; Israelsen Hans; Madsen Soren; Vrang Astrid; Hols Pascal; Delcour Jean; Bron Peter; Kleerebezem Michiel; **Wells Jerry**
CORPORATE SOURCE: Institute of Food Research, Norwich Research Park, Colney, Norwich, NR4 7UA, United Kingdom.
SOURCE: Advances in applied microbiology, (2004) 56 1-64. Ref: 300
Journal code: 0370413. ISSN: 0065-2164.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200501
ENTRY DATE: Entered STN: 20041130
Last Updated on STN: 20050126
Entered Medline: 20050125

L13 ANSWER 11 OF 29 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:453861 BIOSIS
DOCUMENT NUMBER: PREV200300453861
TITLE: Vaccine potential of S. **pneumoniae** (PNC) surface proteins.
AUTHOR(S): Mizrachi-Nebenzahl, Y. [Reprint Author]; Feldman, G. [Reprint Author]; Portnoi, M. [Reprint Author]; Dagan, R. [Reprint Author]; Overweg, K.; **Wells, J.**; Ling, E. [Reprint Author]
CORPORATE SOURCE: Ben Gurion University, Beer Sheva, Israel
SOURCE: FEMS Congress of European Microbiologists Abstract Book, (2003) No. 1, pp. 263. print.
Meeting Info.: 1st Federation of European Microbiological Societies (FEMS) Congress of European Microbiologists. Ljubljana, Slovenia. June 29-July 03, 2003. FEMS (Federation of European Microbiological Societies).
DOCUMENT TYPE: Conference; (Meeting)

Searcher : Shears 571-272-2528

Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Oct 2003
Last Updated on STN: 1 Oct 2003

L13 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 2003:793313 CAPLUS
DOCUMENT NUMBER: 139:375857
TITLE: Expression and delivery of heterologous antigens using lactic acid bacteria
AUTHOR(S): Reuter, Mark A.; **Hanniffy, Sean; Wells, Jerry M.**
CORPORATE SOURCE: Institute of Food Research, Colney, Norwich, UK
SOURCE: Methods in Molecular Medicine (2003), 87(Vaccine Protocols (2nd Edition)), 101-114
CODEN: MMMEFN
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB There has been increasing interest in developing delivery vehicles for use as mucosally administered vaccines. Lactobacillus lactis is a harmless noninvasive bacterium with a history of safe use in the food industry, which makes it more acceptable than attenuated pathogens for vaccine delivery. A number of potential vaccine antigens have now been expressed in L. lactis, but most immunol. studies have been carried out with L. lactis-producing tetanus toxin fragment C. Mucosally administered L. lactis expressing heterologous protein is capable of eliciting both local and systemic immune responses. The pTREX series of theta-replicating plasmid vectors, derived using the non-self-transmissible plasmid pIL253 that carries the broad Gram-pos. host replicon pAMβ1, has been used for both constitutive and inducible expression of heterologous protein antigens in L. lactis. Methods used when working with L. lactis are described with a view to using this bacterium to express and deliver heterologous proteins that can ultimately be developed to treat or prevent diseases in humans.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 13 OF 29 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:519350 BIOSIS
DOCUMENT NUMBER: PREV200300520693
TITLE: S. **pneumoniae** (Pnc) surface proteins as modulators of host immune response.
AUTHOR(S): Nebenzahl, Y. Mizrachi [Reprint Author]; Ling, E. [Reprint Author]; Feldman, G. [Reprint Author]; Portnoi, M. [Reprint Author]; **Wells, J.**; Overweg, K.; Lifshitz, S. [Reprint Author]; Teitelbaum, R. [Reprint Author]; Dagan, R. [Reprint Author]
CORPORATE SOURCE: Ben Gurion University of the Negev, Beer Sheva, Israel
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2003) Vol. 103, pp. E-081. http://www.asmusa.org/mtgsrc/generalmeeting.htm. cd-rom.
Meeting Info.: 103rd American Society for Microbiology General Meeting. Washington, DC, USA. May 18-22, 2003. American Society for Microbiology.
ISSN: 1060-2011 (ISSN print).

Searcher : Shears 571-272-2528

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Nov 2003
Last Updated on STN: 5 Nov 2003

AB Background: The mechanisms that turn Pnc nasopharyngeal carriage (NPC) into mucosal or invasive disease are unclear. We hypothesize that modulation of the host response by Pnc virulence factors determines disease outcome. To decipher the molecular basis of the pathogen-host interactions we established models for NPC, pneumonia and sepsis. By the use of proteomics we identify and clone Pnc proteins that drive the host response towards beneficial or detrimental outcome. Methods: Inbred mice (n=313) were intranasally inoculated with 107 CFU of Pnc 3, 6B and 14. Bacterial load in the nasopharynx,lungs, blood and mRNA levels of TNFalpha, TGFbeta, IL10 and IL12 in the spleen were analyzed. Pnc serotypes 3, 6B and 14 cell wall proteins (CW) were separated by 2-D PAGE and compared by proteomics. Proteins were sequenced, cloned and recombinant proteins were expressed and used for analysis of their immunomodulatory effects. Results: Pnc serotype 3 induced NPC, pneumonia and sepsis with 40% mortality within 3 days. Serotypes 6B and 14 caused non-lethal NPC or NPC and pneumonia, respectively. Serotype 3 did not alter mRNA expression of any of the tested cytokines except for induction of IL10. In nonlethal disease expression of these cytokines mRNA decreased. Sixty proteins were sequenced and immunogenic proteins, as tested by human sera, were cloned. Proteins common to all serotypes tested, among them aldolase, HSP70 and GAPDH, and three specific for serotype 3 were discovered. 79% of CW, 20% of aldolase, 0% of GAPDH immunized mice survived challenge with Pnc, the non-survivals remained alive for 48 hours longer then controls. HSP70 protein and aldolase cDNA immunization did not elicit protection. Conclusions: Alterations in the immune response lead to self-limiting disease, while immune evasion by Pnc 3 resulted in death of the host. Thi inducing HSP70 protein and cDNA did not elicit protection, while immunizations with total CW, aldolase and GAPDH were partially protective. Proteins that appear in serotype 3 only are currently being cloned for analysis of their possible immune suppressive effect.

L13 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 11
ACCESSION NUMBER: 2002:777971 CAPLUS
DOCUMENT NUMBER: 137:305769
TITLE: DNA and protein sequences of Streptococcus **pneumoniae** secretory proteins and the uses of proteins for development of vaccines
INVENTOR(S): Le Page, Richard William Falla; Badcock, Daniel; Sizer, Philip James Holden; Peek, Keith; **Wells, Jeremy Mark; Hanniffy, Sean Bosco**
PATENT ASSIGNEE(S): Microbial Technics Limited, UK; Provalis Uk Limited
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002079241 A2 20021010 WO 2002-GB1480 20020328
WO 2002079241 A3 20030814
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
CA 2446804 AA 20021010 CA 2002-2446804 20020328
EP 1377605 A2 20040107 EP 2002-708512 20020328
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
CN 1513058 A 20040714 CN 2002-810868 20020328
US 2004265933 A1 20041230 US 2004-476460 20040830
PRIORITY APPLN. INFO.: GB 2001-8079 A 20010330
WO 2002-GB1480 W 20020328

AB This invention provides DNA and protein sequences of secretory proteins cloned from Streptococcus **pneumoniae**. The invention also provides the expression pattern of the gene encoding one of the secretory proteins, LID-304 in different isolates of Streptococcus **pneumoniae**. The proteins can be used for development of vaccines for treatment of **pneumococcal** diseases.

L13 ANSWER 15 OF 29 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:347750 BIOSIS
DOCUMENT NUMBER: PREV200300347750
TITLE: Surface lectin (L) and non-lectin (NL) proteins as novel vaccine candidates for S. **pneumoniae** (Pnc).
AUTHOR(S): Ling, E. [Reprint Author]; Feldman, G. [Reprint Author]; Dagan, R. [Reprint Author]; Lifshitz, S. [Reprint Author]; Portnoi, M. [Reprint Author]; Overweg, K.; **Wells, J.**; Nebenzahl, Y. Mizrachi [Reprint Author]
CORPORATE SOURCE: Ben-Gurion Univ, Beer-Sheva, Israel
SOURCE: Abstracts of the Interscience Conference on Antimicrobial Agents and Chemotherapy, (2002) Vol. 42, pp. 247. print.
Meeting Info.: 42nd Interscience Conference on Antimicrobial Agents and Chemotherapy. San Diego, CA, USA. September 27-30, 2002. American Society for Microbiology.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 30 Jul 2003
Last Updated on STN: 30 Jul 2003

AB Background: P. nc. interaction with host cell membrane is of key importance for colonization of the mucosa. Several olygosaccharides interfere with P. nc. adhesion to mammalian cells, suggesting the role of P. nc. L in this process. Our aim was to test the ability of

vaccination with P. nc. L and NL surface proteins to elicit protection against P. nc. challenge. Methods: P. nc. whole cell wall (CW) proteins were separated into L and NL fractions by fetuin affinity chromatography. 7-week-old mice were vaccinated with CW (n=42), L (n=48), and NL (n=43) proteins mixed with Freund's adjuvant. Control animals (n=27) received the adjuvant alone. Mice were challenged intranasally (IN) or intraperitoneally (IP) with 108 or 107 CFU P. nc. serotype 3, respectively. Results: None of the control mice survived following IN and IP inoculation. Following IN inoculation, survival rates were 19/24 (79%) after CW vaccination, 13/25(52%) after NL vaccination and 13/28 (46%) after L vaccination. The respective protection following IP inoculation were 13/18 (72%), 12/18 (67%) and 7/20 (35%). Survival rates after vaccination with NL, compared with L, were significantly higher (p=0.05) following IP challenge, but no differences in survival between animal vaccination with NL and L were observed following IN challenge. All protein fractions were subjected to 2-D gel electrophoresis and 32 proteins were identified by MALDI-tof mass spectrometry for further exploration of their immunizing potential. Conclusions: 1) It is suggested that P. nc. L proteins play an important role in the pathogenesis of P. nc. disease and may be considered for use as vaccine against mucosal P. nc. infections; 2) combination of L and NL specific proteins in a vaccine may elicit comprehensive protection due to efficacy of NL against sepsis and L against P. nc. mucosal adhesion; 3) The importance of the individually sequenced proteins in protection is currently tested, after their cloning.

L13 ANSWER 16 OF 29 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:607931 BIOSIS
DOCUMENT NUMBER: PREV200200607931
TITLE: Lactic acid bacteria for mucosal vaccines and therapy.
AUTHOR(S): **Hanniffy, S.** [Reprint author]; **Wells, J.** [Reprint author]
CORPORATE SOURCE: Institute of Food Research, Norwich, NR4 7UA, UK
SOURCE: Biochemical Society Transactions, (2002) Vol. 30, No. 5, pp. A110. print.
Meeting Info.: Biochemical Society 677th Meeting. Wales, Cardiff, UK. December 07-10, 2002.
CODEN: BCSTB5. ISSN: 0300-5127.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 27 Nov 2002
Last Updated on STN: 27 Nov 2002

L13 ANSWER 17 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 12

ACCESSION NUMBER: 2001:338721 CAPLUS
DOCUMENT NUMBER: 134:364015
TITLE: Sequences of antigenic proteins of a group B Streptococcus and the genes encoding them and their uses in vaccination
INVENTOR(S): Le Page, Richard William Falla; **Wells, Jeremy Mark; Hanniffy, Sean Bosco**
PATENT ASSIGNEE(S): Microbial Technics Limited, UK
SOURCE: PCT Int. Appl., 178 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032882	A2	20010510	WO 2000-GB3437	20000907
WO 2001032882	A3	20011115		
W: CA, CN, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2382455	AA	20010510	CA 2000-2382455	20000907
EP 1214417	A2	20020619	EP 2000-958822	20000907
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003527100	T2	20030916	JP 2001-535564	20000907
US 2003170782	A1	20030911	US 2002-91007	20020306
PRIORITY APPLN. INFO.:			GB 1999-21125 A	19990907
			WO 2000-GB3437 W	20000907

AB The invention provides protein and DNA sequences of novel protein antigens from Streptococcus agalactiae, a group B Streptococcus. Their use in vaccines and screening methods is also described. Gene/partial gene sequences putatively encoding exported proteins in S. agalactiae have been identified using the nuclease screening system vis the LEEP (Lactococcus Expression of Exported Proteins) system. Genes containing signal sequences were identified using a nuclease reporter gene. Tru9I restriction digest fragments were cloned upstream of the nuclease gene and transformants screened using a DNA-Toluidine blue agar overlay which allowed colonies secreting the nuclease to be detected by formation of a pink halo. Mice vaccinated with a number of the genes showed statistically significant longer survival time than did unvaccinated controls when challenged with. S. agalactiae.

L13 ANSWER 18 OF 29 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:201452 BIOSIS
DOCUMENT NUMBER: PREV200200201452
TITLE: Characterisation of a surface protein of Streptococcus **pneumoniae** that is protective against heterologous **pneumococcal** challenge.
AUTHOR(S): **Hansbro, P.** [Reprint author]; **Wells, J.**; Le Page, R.; Kyd, J.
CORPORATE SOURCE: Centre for Biomolecular Vaccine Technology, University of Newcastle, Newcastle, NSW, Australia
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2001) Vol. 101, pp. 300. print.
Meeting Info.: 101st General Meeting of the American Society for Microbiology. Orlando, FL, USA. May 20-24, 2001. American Society for Microbiology.
ISSN: 1060-2011.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 20 Mar 2002
Last Updated on STN: 20 Mar 2002
AB Streptococcus **pneumoniae** is a major global cause of

morbidity and mortality resulting from such diseases as pneumonia, otitis media, septicaemia and meningitis. Some of these diseases result in more infection related deaths than all other vaccine preventable diseases combined. Adding to the problem is that antibiotic resistant strains are emerging at an alarming rate. **Pneumococcal** vaccines are available and utilise the capsular polysaccharide either alone or conjugated to immunogenic proteins. Polysaccharide vaccines do not elicit good immune responses in individuals most at risk and the pnuemococcus can change its' capsular type. Thus a protein-based vaccine is needed, however, all **pneumococcal** antigens discovered and tested so far are flawed when used as vaccines and novel surface proteins are needed. **Pneumococci** have an unusual surface component, phosphorylcholine (PC), that binds to teichoic acids in the cell wall. Choline binding proteins (CBPs) bind to PC and are anchored to the cell surface. To date apprx12 CBPs have been discovered and characterised. We have isolated a set of these CBPs and used the mixture as a vaccine in both **pneumococcal** murine pneumonia and rat otitis media disease models. The mixture was shown to be protective against heterologous challenge in both models. Western blot of the anti-sera identified 2-3 proteins that dominated the response. One of these proteins was shown to provide similar protection against challenge when used alone as the immunising antigen. The different mechanisms of protection induced by this protein in the lung and middle ear are discussed along with the potential uses of this protein as a **pneumococcal** vaccine.

L13 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 13
ACCESSION NUMBER: 2000:707299 CAPLUS
DOCUMENT NUMBER: 133:277190
TITLE: Novel Streptococcus **pneumoniae** protein sequences and their uses as antigen/immunogen/vaccine, in detection/diagnosis, and screening anti-microbial targets
INVENTOR(S): Cripps, Alan William; Kyd, Jennelle Maree; Jomaa, Maha; **Wells, Jeremy Mark; Hansbro, Phillip Michael**
PATENT ASSIGNEE(S): Provalis UK Limited, UK
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000058475	A2	20001005	WO 2000-GB1167	20000327
WO 2000058475	A3	20010308		
W: CN, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1165795	A2	20020102	EP 2000-912834	20000327
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2003502018	T2	20030121	JP 2000-608756	20000327
US 2003022181	A1	20030130	US 2001-962863	20010926
US 2004219165	A1	20041104	US 2004-859548	20040603
PRIORITY APPLN. INFO.:			GB 1999-7114 A	19990326

	GB 1999-28678	A	19991203
	WO 2000-GB1167	W	20000327
	US 2001-962863	B1	20010926

AB Novel antigen sequences from Streptococcus **pneumoniae**, antibody against them, and their uses in detection/diagnosis of Streptococcus **pneumoniae** infection are described. Their potential uses in vaccines and in screening methods are also described.

L13 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 14
ACCESSION NUMBER: 2000:98776 CAPLUS
DOCUMENT NUMBER: 132:162025
TITLE: Novel Streptococcus **pneumoniae** proteins and nucleic acids and their uses as antigen/immunogen/vaccine, in detection/diagnosis, and screening anti-microbial targets
INVENTOR(S): Le Page, Richard William Falla; **Wells, Jeremy Mark; Hanniffy, Sean Bosco; Hansbro, Philip Michael**
PATENT ASSIGNEE(S): Microbial Technics Limited, UK
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006738	A2	20000210	WO 1999-GB2452	19990727
W: CN, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1144640	A2	20011017	EP 1999-934990	19990727
EP 1144640	A3	20011128		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002521058	T2	20020716	JP 2000-562520	19990727
US 2003134407	A1	20030717	US 2001-769744	20010126

PRIORITY APPLN. INFO.:	GB 1998-16336	A	19980727
	US 1999-125329P	P	19990319
	WO 1999-GB2452	W	19990727

AB Novel proteins from Streptococcus **pneumoniae**, nucleic acid sequences encoding them, antibody against them, and their uses in detection/diagnosis of Streptococcus **pneumoniae** infection are described. Their potential uses in vaccines and in screening methods are also described. A large number of genes putatively encoding exported proteins in S. **pneumoniae** were identified using the nuclease screening system. Some of the genes were successfully used as vaccines against Streptococcus **pneumoniae** infection in mice.

L13 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 15
ACCESSION NUMBER: 2000:98775 CAPLUS
DOCUMENT NUMBER: 132:162046
TITLE: Sequences of Streptococcus **pneumoniae** proteins and nucleic acid molecules, and uses thereof in in drug screening, diagnostic, and therapeutic applications
INVENTOR(S): Gilbert, Christophe Francois Guy; **Hansbro, Philip Michael**
PATENT ASSIGNEE(S): Microbial Technics Limited, UK
SOURCE: PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006737	A2	20000210	WO 1999-GB2451	19990727
WO 2000006737	A3	20000629		
W: CN, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1100921	A2	20010523	EP 1999-934989	19990727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002531055	T2	20020924	JP 2000-562519	19990727
US 2003091577	A1	20030515	US 2001-769787	20010126
US 6936252	B2	20050830		

PRIORITY APPLN. INFO.:

GB 1998-16337	A	19980727
US 1999-125164P	P	19990319
WO 1999-GB2451	W	19990727

AB The invention provides sequences of novel protein antigens from type 4 Streptococcus **pneumoniae**. The invention also provides for the use of the disclosed nucleic acids/proteins as antigens/immunogens, in the diagnosis of Streptococcus infections, and in screening for potential antimicrobial agents.

L13 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 16
ACCESSION NUMBER: 2000:98773 CAPLUS
DOCUMENT NUMBER: 132:163385
TITLE: Antigenic proteins of a group B Streptococcus and the genes encoding them and their therapeutic uses
INVENTOR(S): Le Page, Richard William Falla; **Wells, Jeremy Mark; Hanniffy, Sean Bosco**
PATENT ASSIGNEE(S): Microbial Technics Limited, UK
SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2000006736	A2	20000210	WO 1999-GB2444		19990727
WO 2000006736	A3	20000622			
W: CA, CN, JP, US					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
CA 2337102	AA	20000210	CA 1999-2337102		19990727
EP 1100920	A2	20010523	EP 1999-934984		19990727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
US 2003138775	A1	20030724	US 2001-769736		20010126
PRIORITY APPLN. INFO.:			GB 1998-16335	A	19980727
			US 1999-125163P	P	19990319
			WO 1999-GB2444	W	19990727

AB Novel protein antigens from Streptococcus agalactiae, a group B Streptococcus are described, together with nucleic acid sequences encoding them. Their use in vaccines and screening methods is also described. Genes containing signal sequences were identified using a nuclease reporter gene. TruI restriction digest fragments were cloned upstream of the nuclease gene and transformants screened using a DNA-Toluidine blue agar overlay which allowed colonies secreting the nuclease to be detected by formation of a pink halo. Mice vaccinated with a number of the genes showed statistically significant longer survival time than did unvaccinated controls when challenged with. S. agalactiae.

L13 ANSWER 23 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 17

ACCESSION NUMBER:	2000:358989 CAPLUS
DOCUMENT NUMBER:	133:117247
TITLE:	Heterologous expression of an immunogenic **pneumococcal** type 3 capsular polysaccharide in Lactococcus lactis
AUTHOR(S):	Gilbert, Christophe; Robinson, Karen; Le Page, Richard W. F.; **Wells, Jeremy M.**
CORPORATE SOURCE:	Dep. Pathol., Univ. Cambridge, Cambridge, CB2 1QP, UK
SOURCE:	Infection and Immunity (2000), 68(6), 3251-3260 CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER:	American Society for Microbiology
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB In order to develop a new system for the anal. of capsular biosynthetic pathways we have explored the possibility of expressing type 3 capsular polysaccharide (CPS) from the pathogen Streptococcus **pneumoniae** in L. lactis, an unencapsulated lactic acid bacterium being developed as a vaccine delivery vehicle for mucosal immunization. Only 3 of the 4 type 3 CPS biosynthesis genes were necessary for the abundant formation (120 mg/L) of an extracellular type 3 CPS in L. lactis, implying a role for the type 3-specific synthase in the extracellular transport of the CPS or implying the existence of an alternative export system in L. lactis. The authenticity of the expressed heterologous polysaccharide was established by chemical and immunol. analyses. Proton and carbon NMR spectroscopy of CPSs purified from L. lactis and S. **pneumoniae** showed that the 2 CPS structures were identical. When mice were immunized i.p. with 3.5 + 106 CFU of live recombinant lactococci expressing a total of .apprx.0.5 μg type 3 CPS, the immune

responses elicited appeared identical to those observed in mice inoculated with 0.5 μg of type 3 CPS purified from S. **pneumoniae**. These findings show that L. lactis is a useful host in which to study the role and function of genes involved in the production of bacterial capsules. Addnl., L. lactis shows potential as a host for the safe production of capsule antigens and as a vaccine delivery vehicle for polysaccharide antigens.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 18

ACCESSION NUMBER: 1998:509268 CAPLUS
DOCUMENT NUMBER: 129:118773
TITLE: Cloning and expression of capsular polysaccharide genes in Lacotoccus lactis for vaccine production
INVENTOR(S): **Wells, Jeremy Mark**; Le Page, Richard William Falla; Gilbert, Christophe Francois Guy
PATENT ASSIGNEE(S): Microbial Technics Ltd., UK; Le Page, Richard William Falla
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9831786	A2	19980723	WO 1998-GB156	19980119
WO 9831786	A3	19981105		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9800387	A	19990716	ZA 1998-387	19980116
AU 9856719	A1	19980807	AU 1998-56719	19980119
EP 973864	A1	20000126	EP 1998-900912	19980119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001510342	T2	20010731	JP 1998-533958	19980119
PRIORITY APPLN. INFO.:			GB 1997-939 A	19970117
			WO 1998-GB156 W	19980119

AB Novel non-invasive or non-pathogenic gram-pos. microorganisms are provided which are transformed or transfected with DNA coding for one or more enzymes responsible for the production of a polysaccharide immunogen from a pathogenic bacterium. Vaccines comprising such microorganisms and their use in therapy are also provided, as are suitable DNA constructs and vectors. Thus, non-pathogenic, Gram-pos. Lactococcus lactis, Listeria monocytogenes, L. innocua, Staphylococcus xylosus, S. carnosus, Streptococcus gordoni, Lactobacillus and other microorganism were transformed with immunogenic capsular

polysaccharide genes such as that encoding the capsule protein from Streptococcus **pneumoniae**. Other capsular protein genes can be obtained from Neisseria meningitidis, N. gonorrhea, Heaemophilus influenzae, Bacteroides fragilis, or other Gram-neg. pathogenic bacteria. The vaccine against a polysaccharide-encapsulated bacterium is adapted for nasal or oral administration.

L13 ANSWER 25 OF 29 JICST-EPlus COPYRIGHT 2005 JST on STN
ACCESSION NUMBER: 940314527 JICST-EPlus
TITLE: Manumycins E,F and G, new members of manumycin class antibiotics, from Streptomyces sp.
AUTHOR: SHU Y-Z; HUANG S; WANG R R; LAM K S; KLOHR S E; VOLK K J; **WELLS J S**
FERNANDES P B; PATEL P S
CORPORATE SOURCE: Bristol-Myers Squibb Pharmaceutical Research Inst., CT, USA
Bristol-Myers Squibb Phamaceutical Research Inst., NJ, USA
SOURCE: J Antibiot, (1994) vol. 47, no. 3, pp. 324-333. Journal Code: G0489A (Fig. 6, Tbl. 4, Ref. 20)
ISSN: 0021-8820
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
LANGUAGE: English
STATUS: New
AB Three new manumycin class antibiotics, namely manumycins E,F and G, were isolated from the culture both of Streptomyces sp. strain WB-8376. Their structures were established by spectroscopic methods, and the S configuration of C-4 in the epoxycyclohexenone moiety was determined by CD exciton chirality method for each of the three compounds. Manumycins E,F and G are active against Gram-positive bacteria, and have moderate inhibitory effects on the farnesylation or p21 ras protein. They demonstrated weak cytotoxic activity against human colon tumor cell HCT-116. (author abst.)

L13 ANSWER 26 OF 29 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1993:410027 BIOSIS
DOCUMENT NUMBER: PREV199396075752
TITLE: Lactococcus lactis: High-level expression of tetanus toxin fragment C and protection against lethal challenge.
AUTHOR(S): **Wells, Jeremy M.** [Reprint author]; Wilson, Peter W.; Norton, Pamela M.; Gasson, Michael J.; Le Page, Richard W. F.
CORPORATE SOURCE: Mucosal Immunol. Group, Univ. Cambridge, Dep. Pathol., Cambridge CB2 1QP, UK
SOURCE: Molecular Microbiology, (1993) Vol. 8, No. 6, pp. 1155-1162.
CODEN: MOMIEE. ISSN: 0950-382X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Sep 1993
Last Updated on STN: 8 Sep 1993
AB To determine if the food-grade bacterium Lactococcus lactis holds promise as a vaccine antigen delivery vector we have investigated whether this bacterium can be made to produce high levels of a heterologous protein antigen. A regulated expression system has been developed which may be generally suitable for the expression of

foreign antigens (and other proteins) in L. lactis. The system utilizes the fast-acting T7 RNA polymerase to transcribe target genes, and provides the first example of the successful use of this polymerase in a Gram-positive bacterium. When the performance of the expression system was characterized using tetanus toxin fragment C (TTFC) up to 22% of soluble cell protein was routinely obtained as TTFC. Mice immunized subcutaneously with L. lactis expressing TTFC were protected from lethal challenge with tetanus toxin. These results show for the first time that L. lactis is able to express substantial quantities of a heterologous protein antigen and that this organism can present this antigen to the immune system in an immunogenic form.

L13 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 19
ACCESSION NUMBER: 1979:518309 CAPLUS
DOCUMENT NUMBER: 91:118309
TITLE: Comparison of assay of coliform enterotoxins by conventional techniques versus in vivo intestinal perfusion
AUTHOR(S): Klipstein, Frederick A.; Guerrant, Richard L.; **Wells, Joy G.**; Short, Helen B.; Engert, Richard F.
CORPORATE SOURCE: Sch. Med., Univ. Rochester, Rochester, NY, 14642, USA
SOURCE: Infection and Immunity (1979), 25(1), 146-52
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thirty-six strains of coliform bacteria were tested for enterotoxigenicity both by conventional assays, including the Y-1 adrenal and Chinese hamster ovary cell assays for heat-labile toxin and the suckling mouse assay for heat-stable toxin, and by determining the ability of graded concns. of ultrafiltrate high- or low-mol.-weight toxin prepns. to induce water secretion during in vivo perfusion in the rat jejunum. The ultrafiltrates of all 18 strains isolated from persons with infectious diarrheal disease, including 7 of Escherichia coli, 7 of Klebsiella pneunomiae, and 4 of Enterobacter cloacae, contained 1 (9 strains) or 2 (9 strains) potent toxin fractions (resembling either heat-labile or heat-stable toxin in terms of apparent mol. weight and heat lability characteristics) that induced water secretion at perfusion concns. of 10 ng/mL or less. Unconcd. broth filtrates of five of the E. coli strains and 2 of Klebsiella reacted pos. in ≥1 of the conventional assay systems. Concentrated ultrafiltrates from 2 strains that were neg. in the in vitro assays for heat-labile toxin were tested and also were inactive in these test systems. None of 18 strains isolated from control sources produced, in the ultrafiltrates, enterotoxins capable of inducing water secretion at low concns., and none reacted pos. in the conventional assays. Thus, some strains of coliform bacteria elaborate potent toxin materials that are capable of inducing water secretion and can be detected by perfusion of concentrated ultrafiltrates but not by conventional assay systems for enterotoxigenicity.

L13 ANSWER 28 OF 29 PASCAL COPYRIGHT 2005 INIST-CNRS. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 1980-0011612 PASCAL
TITLE (IN ENGLISH): Comparison of assay of coliform enterotoxins by conventional techniques versus in vivo intestinal perfusion

AUTHOR: KLIPSTEIN F. A.; GUERRANT R. L.; **WELLS J. G.**; SHORT H. B.; ENGERT R. F.
CORPORATE SOURCE: Univ. Rochester, sch. med., Rochester NY 14642, United States
SOURCE: Infect. and Immun., (1979), 25(1), 146-152, 37 refs.
DOCUMENT TYPE: Journal
BIBLIOGRAPHIC LEVEL: Analytic
COUNTRY: United States
LANGUAGE: English
AVAILABILITY: CNRS-15757
AN 1980-0011612 PASCAL

L13 ANSWER 29 OF 29 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 71141842 MEDLINE
DOCUMENT NUMBER: PubMed ID: 5549310
TITLE: Metastatic endophthalmitis: a report of 3 cases in proven septicemia.
AUTHOR: Jarrett W H 2nd; **Wells J A**; Hyman B N
SOURCE: Southern medical journal, (1971 Feb) 64 (2) 194-8. Journal code: 0404522. ISSN: 0038-4348.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197105
ENTRY DATE: Entered STN: 19900101
Last Updated on STN: 19900101
Entered Medline: 19710506

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L5             0 SEA ABB=ON  PLU=ON  "HANNIFFY B"?/AU
L6            24 SEA ABB=ON  PLU=ON  "HANNIFFY S"?/AU
L7             0 SEA ABB=ON  PLU=ON  L1 AND L2 AND L6 AND L4
L8             0 SEA ABB=ON  PLU=ON  L1 AND (L2 OR L6 OR L4)
L9            23 SEA ABB=ON  PLU=ON  L2 AND (L4 OR L6)
L10            2 SEA ABB=ON  PLU=ON  L4 AND L6
L11           63 SEA ABB=ON  PLU=ON  (L1 OR L2 OR L4 OR L6) AND (PNEUMONIAE
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